

State of California
AIR RESOURCES BOARD

Executive Order R-14-003

*Relating to the Certification and Test Procedures for Vapor Recovery Systems at
Gasoline Dispensing Facilities and Cargo Tanks*

WHEREAS, on July 25, 2013, the Air Resources Board (ARB or Board) conducted a public hearing to consider for approval amendments to the Certification and Test Procedures for Vapor Recovery Systems at Gasoline Dispensing facilities (GDFs) and Cargo Tanks, as set forth in the Initial State of Reasons released to the public on June 5, 2013;

WHEREAS, the environmental analysis included in the Initial Statement of Reasons, prepared in accordance with ARB's certified regulatory program and the policy and substantive requirements of CEQA, concluded that the amendments will not result in any significant adverse impacts on the environment;

WHEREAS, following the public hearing, the Board adopted Resolution 13-32, in which the Board approved for adoption amendments to sections 94011, 94014, and 94016, title 17, California Code of Regulations (CCR), and the incorporated certification and test procedures, as set forth in Attachments A and B thereto;

WHEREAS, Resolution 13-32, directed the Executive Officer to determine if additional conforming modifications to the regulation and additional supporting documents and information were appropriate and take final action to adopt the modified regulation after making the modified regulatory language and any additional supporting documents and information available to the public for a period of 15 days, consider such written comments as may be submitted during this period, make such further modifications as may be appropriate in light of the comments received, or return the regulatory amendments to the Board for further consideration if warranted;

WHEREAS, on March 3, 2014, the amendments approved by the Board and other changes made to best reflect the intent of the Board at the hearing, were made available for public comment for a period of 15-days, with the changes to the originally proposed text clearly indicated, in accordance with the provisions of title 1, California Code of Regulations, section 44;

WHEREAS, Resolution 13-32, further directed the Executive Officer to consider and approve the written responses to any comments raising environmental issues in accordance with CCR, title 17, section 60007 prior to taking final action to adopt the regulatory amendments; and

WHEREAS, two written comments were received during the initial 45-day comment period and no comments were received during the supplemental 15-day comment period, and those comments have been considered by the Executive Officer.

NOW, THEREFORE, IT IS ORDERED that the recitals and findings contained in Resolution 13-32 are incorporated herein.

IT IS FURTHER ORDERED, the written responses prepared for comments received are hereby approved, including the written responses to any environmental issues raised as required by CCR, title 16, section 60007.

IT IS FURTHER ORDERED that sections 94014, and 94016, title 17, California Code of Regulations, as set forth in Attachment 1 to this order, CP-204 - "Certification Procedure for Vapor Recovery Procedure for Vapor Recovery Systems for Cargo Tanks", as set forth in Attachment 2 to this order, TP-204.1 - "Determination of Five Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks" as set forth in Attachment 3 to this order, TP-204.2 - "Determination of One Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks" as set forth in Attachment 4 to this order, TP-204.3 - "Determination of Leak(s)" as set forth in Attachment 5 to this order, TP-206.2 - "Determination of Emission Factor for Standing Loss Control Vapor Recovery Systems Using Processors at Gasoline Dispensing Facilities with Aboveground Storage Tanks" as set forth in Attachment 6 to this order, TP-206.4 - "Volumetric Efficiency of Phase I Vapor Recovery Systems for Aboveground Storage Tanks as set forth in Attachment 7 to this order, and CP-206 - "Vapor Recovery Certification Procedure" as set forth in Attachment 8 to this order, are adopted.

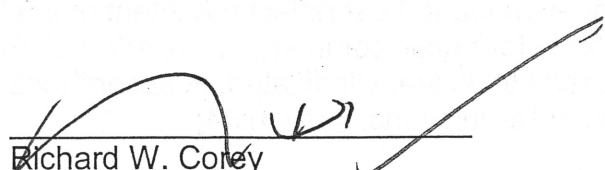
IT IS FURTHER ORDERED that the adopted regulatory text and incorporated certification and test procedures may be further revised with nonsubstantial or grammatical changes, which will be added to the rulemaking record and indicated as such.

Executed this 27th day of May 2014, at Sacramento, California.

FILED
MAY 28 2014

Resources Agency of California

Attachments


Richard W. Corey
Executive Officer

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER R-14-009

Relating to the Resubmittal Package to the Office of Administrative Law for Amendments to the Certification and Test Procedures for Vapor Recovery Systems at Gasoline Dispensing Facilities and Cargo Tanks Regulation

WHEREAS, on July 25, 2013, the Air Resources Board (ARB or Board) conducted a public hearing to consider for approval the proposed amendments to the Certification and Test Procedures for Vapor Recovery Systems at Gasoline Dispensing Facilities (GDFs) and Cargo Tanks, as set forth in the Initial Statement of Reasons released to the public on June 5, 2013;

WHEREAS, following the public hearing, the Board adopted Resolution 13-32, in which the Board approved for adoption amendments to sections 94011, 94014, and 94016, title 17, California Code of Regulations (CCR), and the incorporated certification and test procedures, as set forth in Attachments A and B of that resolution;

WHEREAS, Resolution 13-32 directed the Executive Officer to determine if additional conforming modifications to the regulation and additional supporting documents and information were appropriate, and to take final action to adopt the modified regulation after making the modified regulatory language and any additional supporting documents and information available to the public for a period of 15 days. The Executive Officer was directed to consider any written comments submitted during the public review period, and to make additional modifications as may be appropriate in light of the comments received, or return the regulatory amendments to the Board for further consideration if warranted;

WHEREAS, on March 3, 2014, the amendments approved by the Board and other changes made to best reflect the intent of the Board at the hearing, were made available for public comment for a period of 15 days, with the changes to the originally proposed text clearly indicated, in accordance with the provisions of the California Code of Regulations, title 1, section 44;

WHEREAS, two written comments were received during the initial 45-day comment period and no comments were received during the supplemental 15-day comment period, and those comments have been considered by the Executive Officer;

WHEREAS, the Executive Officer adopted the Certification and Test Procedures for Vapor Recovery Systems at GDFs and Cargo regulation by Executive Order R-14-003, dated May 27, 2014, and submitted the rulemaking package to the Office of Administrative Law for review in accordance with the California Administrative Procedure Act (APA);

WHEREAS, on July 15, 2014, the Office of Administrative Law issued a Decision of Disapproval of Regulatory Action;

WHEREAS, modifications were made to certain incorporated certification and test procedures in order to correct the deficiencies specified in the July 15, 2014 Decision of Disapproval by the Office of Administrative Law;

WHEREAS, the modifications were made available for a second 15-day comment period starting September 16, 2014, in accordance with the provisions of section 44, title 1, CCR, with the modifications clearly indicated;

WHEREAS, no comments were received during the second 15-day comment period; and

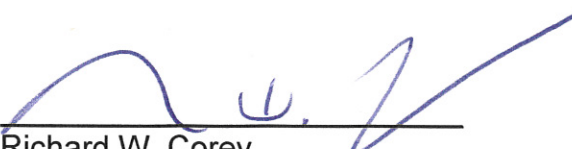
WHEREAS, based on substantial evidence in the record there is no possibility that the modifications to the regulation made available for 15 day public comment periods after the Board hearing could affect the conclusion of the environmental analysis included in the Staff Report, so no additional environmental analysis was required and no additional comments raising significant environmental issues were received.

NOW, THEREFORE, IT IS ORDERED that the recitals and findings contained in Resolution 13-32 and Executive Order R-14-003 are incorporated by reference herein.

IT IS FURTHER ORDERED that sections 94014 and 94016, title 17, California Code of Regulations, as set forth in Attachment 1 to this order, CP-204 – “Vapor Recovery Certification Procedure,” as set forth in Attachment 2 to this order, TP-204.1 – “Determination of Five Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks,” as set forth in Attachment 3 to this order, TP-204.3, “Determination of Leak(s),” as set forth in Attachment 4 to this order, and TP-206.4 – “Volumetric Efficiency of Phase I Vapor Recovery Systems for Aboveground Storage Tanks,” as set forth in Attachment 5 to this order, are adopted.

IT IS FURTHER ORDERED that the adopted regulatory text and incorporated certification and test procedures may be further revised with nonsubstantial or grammatical changes, which will be added to the rulemaking record and indicated as such.

Executed this 7th day of November 2014, at Sacramento, California.



Richard W. Corey
Executive Officer

Attachments

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California Environmental Protection Agency



~~Vapor Recovery Certification Procedure~~

~~CP-204~~

~~Certification Procedure for
Vapor Recovery Systems of
Cargo Tanks~~

~~Adopted: April 12, 1996
Amended: March 17, 1999~~

**The certification procedure is being amended. For ease of viewing,
the procedure is shown as repealed text**

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~~California Environmental Protection Agency Air Resources Board~~

~~Vapor Recovery Certification Procedure~~

~~CP-204~~

~~Certification Procedure for Vapor Recovery Systems of Cargo Tanks~~

~~1 GENERAL INFORMATION AND APPLICABILITY~~

~~This document describes a procedure for certifying equipment which recovers vapors emitted in association with gasoline marketing operations involving cargo tanks.~~

~~Other vapor recovery certification procedures provide instructions for determining performance standards, performance specifications, and test procedures for equipment which recovers vapors emitted in association with gasoline marketing operations involving: dispensing facilities (CP-201); bulk plants and cargo tanks (CP-202); and supply lines, terminals, delivery lines, and cargo tanks (CP-203). For novel facilities or systems to which CP-201 through 204 do not apply, CP-205 provides instructions for determining performance standards, performance specifications, and test procedures for equipment which recovers vapors emitted in association with gasoline marketing operations.~~

~~This procedure is applicable to tank trucks and trailers that are equipped for the transport of gasoline and that must be equipped for gasoline vapor recovery in accordance with air pollution control district rules.~~

~~Only a vapor recovery system of a design that is certified by the ARB Executive Officer may be installed on a cargo tank.~~

~~No person shall operate, or allow the operation of, a cargo tank unless the cargo tank is certified and maintained in accordance with these procedures. Certifications shall be issued on an annual basis and shall expire on the last day of the month one year following the month of issuance of the certification.~~

~~The owner or operator of any cargo tank shall:~~

~~(1) annually test such tank(s) in accordance with the provisions of § 4 and~~

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~~(2) annually apply for certification of such tank(s) in accordance with this procedure.~~

~~Tests shall be conducted by the owner of the cargo tank, or a consultant, at the expense of the owner. Prior to testing, the owner shall notify the Executive Officer, or his or her designate(s), of the date, time, and location of the testing. The Executive Officer or designate(s) may observe or conduct tests.~~

~~A set of definitions common to all certification and test procedures is in:~~

~~D-200 Definitions for Certification Procedures and Test Procedures for Vapor Recovery Systems~~

~~1.1 Legislative and Regulatory Requirements of Other California State Agencies~~

~~As required, the ARB Executive Officer shall coordinate this certification procedure with:~~

~~(1) Department of Food and Agriculture,
—— Division of Measurement Standards (DMS)~~

~~(2) State Fire Marshal (SFM)~~

~~(3) Department of Industrial Relations,
—— Division of Occupational Safety and Health (DOSH)~~

~~1.2 Legislative and Regulatory Requirements of Other Agencies~~

~~In addition to California's local Districts, other federal, state, or local agencies may have legal jurisdiction regarding vapor recovery systems. The applicant is solely responsible for:~~

~~(1) compatibility of the applicant's equipment with the application of any other agency's test procedures;~~

~~(2) testing of the applicant's equipment with such test procedures; and~~

~~(3) compliance with performance standards and performance specifications in any other agency's regulations referencing such test procedures.~~

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~~The ARB Executive Officer is not responsible for items (1) through (3) above.~~

~~2 SUMMARY OF CERTIFICATION PROCESS~~

~~2.1 Summary of Requirements of Certification Procedure~~

~~This certification procedure has five interacting components which may be applied iteratively in complex cases. For example, review of evaluation and testing may yield additional specifications. The five components are:~~

~~2.1.1 Application for Certification (See § 3)~~

~~The applicant must submit all required application information. The ARB Executive Officer shall consult with the applicant, shall review the information, may require revisions or more information, and shall approve the application after it is determined to be complete.~~

~~2.1.2 Standards, Specifications, and Test Procedures (See § 4)~~

~~The ARB Executive Officer shall specify performance standards, performance specifications, and test procedures for vapor recovery equipment in response to a completed application for certification.~~

~~2.1.3 Evaluation and Testing of Vapor Recovery Equipment (See § 5)~~

~~The vapor recovery equipment shall be subjected to evaluation and testing according to the performance standards, performance specifications, and test procedures at the applicant's expense. The ARB Executive Officer shall conduct all evaluation and testing unless the ARB Executive Officer determines that the equipment owner or operator shall contract for or conduct specified evaluation and testing on a case-by-case basis.~~

~~2.1.4 Documentation for Certification (See § 6)~~

~~A Certification Report shall be prepared, at the applicant's expense, documenting the preceding components:~~

~~(1) Application for Certification;~~

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- ~~(2) Standards, Specifications, and Procedures; and~~
- ~~(3) Evaluation and Testing of Vapor Recovery Equipment.~~

~~The ARB Executive Officer shall consult with the applicant, shall review the report, may require additional work on the components, and shall approve and sign the Certification Report after it is determined that:~~

- ~~(1) The Certification Report is complete; and~~
- ~~(2) the Certification Report documents successful performance of the subject vapor recovery equipment according to the required performance standards, performance specifications, and test procedures.~~

~~2.1.5—Certification (See § 7)~~

~~Evidence of certification shall be an ARB Executive Order (which shall reference the Certification Report) signed by the ARB Executive Officer.~~

~~2.2—Summary of Time Periods for Review and Processing~~

~~The following definitions of ARB Executive Officer Actions and Time Periods shall apply to all applications subject to this procedure per CCR, Title 17, § 60030 (in some cases, another enforcing agency shall perform actions):~~

~~"ARB Executive Officer Interim Action #1"~~

~~means that the ARB Executive Officer determines that application is deficient per § 3, § 4, § 5, or § 6 and communicates specific deficiencies to the Applicant in writing.~~

~~"ARB Executive Officer Interim Action #2"~~

~~means that the ARB Executive Officer determines that application is complete per § 3, § 4, § 5, and § 6 and accepted for filing and communicates such determination to Applicant in writing.~~

~~"ARB Executive Officer Final Action"~~

~~means that the ARB Executive Officer acts to disapprove or approve the application per § 3, § 4, § 5, § 6, and § 7 and communicates such determination to the Applicant in writing.~~

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~~"Time Periods"~~

are defined in the table below:

FROM: ACTION BELOW	TIME PERIOD	TO: ACTION BELOW
Applicant files an initial application for certification.	within 30 days	ARB Executive Officer Interim Action #1 or #2
Applicant files an amended application for certification.	within 15 days	ARB Executive Officer Interim Action #1 or #2
ARB Executive Officer Interim Action #2	within 90 days	ARB Executive Officer Final Action

~~The time periods specified above may be extended by the ARB Executive Officer for good cause per CCR, Title 17, § 60030 (d).~~

~~3 APPLICATION FOR CERTIFICATION~~

~~Warning:~~ ~~All of the information specified in all of the following subsections must be submitted to the ARB Executive Officer for an application to be considered complete.~~

~~Applications which do not completely satisfy the requirements of this section shall be returned to the applicant with an indication of deficiencies.~~

~~3.1 Application for Approval of a Vapor Recovery System Design~~

~~The applicant shall submit a set of engineering drawings and specifications including but not limited to piping configuration and dimensions, types of seals, and types of couplers for delivery hoses. Data which demonstrate that the cargo tank vapor recovery piping system will work in conjunction with the appropriate underground storage tank vapor recovery system for controlling the gasoline vapors displaced during the filling of underground storage tanks shall also be~~

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~~submitted.~~

~~The ARB Executive Officer, upon review of the drawings and specifications of a system design, and upon finding that the system complies with the requirements of § 4.2.1.1, shall issue a System Design Approval Number.~~

3.2 ~~Application for Certification of an Individual Cargo Tank~~

~~The application for certification of individual cargo tanks shall be submitted to the ARB Executive Officer, and shall contain the following information:~~

- ~~(1) Name, address, and telephone number of owner or operator, and company name (if applicable).~~
- ~~(2) The sizes and number of compartments of the cargo tank.~~
- ~~(3) The cargo tank's California Highway Patrol cargo tank identification number.~~
- ~~(4) The air pollution control district in which the cargo tank's base of operation is located.~~
- ~~(5) A statement that the tank has been tested according to the test procedures in TP-204.1 and complies with the performance standards in § 4.1.~~
- ~~(6) The test data acquired in (5) above.~~
- ~~(7) A declaration under penalty of perjury by the person conducting the test that the information contained in items (5) and (6) is true and correct.~~
- ~~(8) A declaration under penalty of perjury by the applicant setting forth his or her relationship to the cargo tank and stating that all information is true and correct.~~

3.3 ~~Information Required by the ARB Executive Officer~~

3.3.1 ~~Evidence of Corporate and Financial Responsibility~~

~~The requirements of this section shall apply with equal stringency both to original manufacturers and to rebuilders of vapor recovery equipment.~~

- ~~3.3.1.1 The ARB Executive Officer, to cover the cost of approving system designs may charge a fee not to exceed the actual cost incurred.~~

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~~3.3.1.2 The ARB Executive Officer, to cover the cost of certifying cargo tanks, may charge a fee not to exceed the actual cost of certification.~~

~~3.3.2 Design~~

~~3.3.2.1 Engineering Drawings~~

~~The applicant shall submit engineering drawings for:~~

- ~~(1) each prototype vapor recovery system and~~
- ~~(2) all equipment components of each prototype system.~~

~~For any component, in lieu of a component drawing, the applicant can submit an affidavit declaring:~~

- ~~(1) the manufacturer's model number for the component and~~
- ~~(2) the applicant's commitment to maintain, on file, engineering drawings for such component.~~

~~3.3.2.2 List of Components by Manufacturer and Model Number~~

~~The applicant shall submit a list of components by manufacturer and model number for the vapor recovery system.~~

~~3.3.3 Installation, Operation, and Maintenance~~

~~For approval of a vapor recovery system design, a system manual which specifies required installation, operation, and maintenance procedures for the vapor recovery system shall be submitted with the application. A required field training program for maintenance personnel shall be specified in the system manual, including performance specifications for personnel and maintenance procedures.~~

~~3.3.4 Compatibility~~

~~This section specifies vapor recovery system compatibility requirements which, although not specified in terms of vapor recovery effectiveness, form an indispensable basis for proceeding with the application of the appropriate~~

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~~certification and test procedures.~~

~~The installation, operation, and maintenance of vapor recovery equipment must be compatible with:~~

- ~~(1) the application of performance standards, performance specifications, and test procedures and~~
- ~~(2) the installation, operation, and maintenance of any other equipment associated with such vapor recovery equipment.~~

~~The design of the vapor recovery system of the cargo tank shall be such that when the cargo tank is connected to an approved underground storage tank vapor recovery system or a vapor recovery system at a bulk plant or terminal it shall not prevent such systems from achieving the required vapor recovery efficiencies. The connectors of the cargo tank shall be compatible with the fittings on the fill pipes at the service stations and gasoline terminals which the cargo tank will service. Such compatibility may be achieved by the use of adapters.~~

4 ~~PERFORMANCE STANDARDS, PERFORMANCE SPECIFICATIONS, AND TEST PROCEDURES~~

Warning: ~~The installation, operation, maintenance, and inspection of a vapor recovery system must be compatible with:~~

- ~~(1) the application of specified performance standards, performance specifications, and test procedures and~~
- ~~(2) the installation, operation, maintenance, and inspection of any other equipment associated with such system.~~

~~4.1 Performance Standards and Test Procedures~~

~~4.1.1 Static Pressure~~

~~4.1.1.1 Five Minute Performance Standard (Yearly)~~

~~The yearly performance standard is expressed as the maximum allowable pressure change in five minutes for a cargo tank which has been either:~~

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~~(1) pressurized to +18 inches water column (gauge) or~~

~~(2) evacuated to -6 inches water column (gauge).~~

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Pressure Change per Cargo Tank or Compartment Tested	
Allowed Pressure Change in Five Minutes (inches water column, gauge)	Cargo Tank or Compartment Capacity (gallons)
0.50	2500 or more
0.75	2499 to 1500
1.00	1499 to 1000
1.25	999 or less

4.1.1.2 — Test Procedures

Compliance with and violation of the annual certification criterion shall be determined by:

TP-204.1

4.1.2 — Static Pressure

4.1.2.1 — Performance Standards (Daily)

Two equivalent performance standards are specified below. It is a permanent condition of certification that cargo tank performance comply with both of these standards.

The five minute performance standard is specified and tested similarly to the yearly standard, but is based on pressure change from +18 inches water column (gauge) only and is less stringent.

The one minute performance standard is dependent on the headspace volume after loading, which can vary from one loading to the next.

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~~(1) Five Minute Performance Standard (Daily)~~

Pressure Change per Cargo Tank or Compartment Tested per TP-204.1	
Allowed Pressure Change in Five Minutes (inches water column, gauge)	Cargo Tank or Compartment Capacity (gallons)
2.5	2500 or more
3.0	2499 to 1500
3.5	1499 to 1000
4.0	999 or less

~~(2) One Minute Performance Standard (Daily)~~

Pressure Change per Cargo Tank or Compartment Tested per TP-204.2
The appropriate one minute performance standard is determined by application of TP-204.2.

~~4.1.2.2 Test Procedures~~

~~Compliance with and violation of the static pressure performance standards
shall be determined by:~~

~~_____ **TP-204.1**~~

~~_____ **TP-204.2**~~

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~~4.1.3 Internal Vapor Valve~~

~~4.1.2.1 Performance Standard~~

~~Every cargo tank shall have an internal vapor valve. A check valve or cap is not an acceptable alternative.~~

~~The opening pressure for any pneumatic internal vapor valve shall be listed in the Executive Order certifying a cargo tank with such a valve. A pressure gauge (0 to 100 psig) shall be installed on any such cargo tank, maintained in good working order, and observed by the operator during as large a fraction of the duration of each delivery as practicable. The operator shall terminate delivery and return for maintenance and repairs if the pressure gauge indicates a pressure below the opening pressure of such a cargo tank's pneumatic internal vapor valve.~~

~~Two equivalent performance standards are specified below. It is a permanent condition of certification that cargo tank performance comply with both of these standards.~~

~~(1) Five Minute Performance Standard (Yearly)~~

Pressure Change per Cargo Tank or Compartment Tested per TP-204.1	
Allowed Pressure Change in Five Minutes (inches water column, gauge)	Cargo Tank or Compartment Capacity (gallons)
5.0	all

~~(2) One Minute Performance Standard (Daily)~~

Pressure Change per Cargo Tank or

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Compartment Tested per TP-204.2

The appropriate one minute performance standard is determined by application of TP-204.2.

4.1.3.2—Test Procedures

Compliance with and violation of the internal vapor valve performance standards shall be determined by:

TP-204.1

TP-204.2

4.1.4—Vapor and Liquid Leaks

Note: A cargo tank shall not be required to comply with any leak criteria or performance standards except those that relate directly to the cargo tank; such leaks are "cargo tank leaks"; examples of leaks which are not cargo tank leaks are:

- (1) leaks involving bulk plant or terminal equipment including
- (2) leaks from couplings between cargo tank equipment and bulk plant or terminal equipment, unless the coupling was brought into the bulk plant or terminal facility on the cargo tank vehicle.

Leaks of types (1) and (2) are not evidence of non-compliance of the cargo tank per this procedure.

4.1.4.1—Performance Standards

The performance standards for leak(s) from any cargo tank is that no vapor leak or liquid leak shall occur from any cargo tank according to the following definitions:

(1) **Vapor Leak**

A vapor leak is defined to be any source of gasoline vapors which causes a combustible gas detector meter reading exceeding 100 percent of the LEL when measured at a distance of one inch (2.5 cm). A marginal

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~~vapor leak may be verified by conducting a pressure/vacuum leak test. A vapor leak does not include any vapor resulting from liquid spitback, spillage, or leakage.~~

~~(a) Probe Distance~~

~~The detector probe inlet shall be 2.5 cm from the potential leak source. The distance can be maintained during monitoring by putting a 2.5 cm extension on the probe tip.~~

~~(b) Probe Movement~~

~~Move the probe slowly (approximately 4 cm/sec). If there is any meter deflection at a potential leak source, move the probe to locate the point of highest meter response.~~

~~(c) Probe Position~~

~~As much as possible, the probe inlet shall be positioned in the path of the vapor flow from a leak so as to maximize the measured concentration.~~

(2) Liquid Leak

~~A liquid leak is defined to be the dripping of liquid organic compounds at a rate in excess of three (3) drops per minute from any single leak source other than the liquid fill line and vapor line disconnect operations. A liquid leak from liquid fill line and vapor line disconnect operations is defined to be:~~

- ~~(1) more than two (2) milliliters liquid drainage per disconnect from a top loading operation; or~~
- ~~(2) more than ten (10) milliliters liquid drainage from a bottom loading operation.~~

~~Such liquid drainage for disconnect operations shall be determined by computing the average drainage from three consecutive disconnects at any one permit unit.~~

4.1.4.2 Test Procedures

~~Compliance with and violation of the leak performance standards shall be~~

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determined using:

~~TP-204.3 Determination of Leaks~~

~~4.2 Performance Specifications and Test Procedures~~

~~Performance specifications may be specified by the applicant in the required application information for each component or configuration of components of the vapor recovery system. Such performance specifications shall be the basis for any testing performed on any component or configuration of components when isolated from the rest of the system.~~

~~Other performance specifications shall be added, as appropriate after review of system information by the ARB Executive Officer.~~

~~Per Section 41962 (h) of the Health and Safety Code, Districts shall neither establish more stringent performance specifications nor adopt test procedures for cargo tanks.~~

~~4.3 Performance Standards and Performance Specifications for Novel Systems~~

~~For novel systems, on a case-by-case basis, additional performance standards and performance specifications shall be required based on evaluation by the ARB Executive Officer and a determination of necessity.~~

~~4.4 Test Procedures for Novel Systems~~

~~Novel test procedures shall be required for novel systems based on evaluation by the ARB Executive Officer and a determination of necessity.~~

~~4.4.1 Technical Identification of Need~~

~~The equipment related to any application for certification shall be subject to an engineering evaluation.~~

~~The engineering evaluation may result in a technical identification of need for development of special test procedures for novel systems, components, or applications.~~

~~4.4.2 Administrative Requirement for Development~~

NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~Following any such technical identification of need, the applicant shall be responsible for developing test procedures for the applicant's equipment to demonstrate that such equipment can meet any applicable performance standards or specifications.~~

~~4.4.3 Evaluation and Approval~~

~~Any test procedures identified and developed by the applicant shall be subject to an engineering evaluation which must result in approval by the ARB Executive Officer to meet the requirements of this section.~~

NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~5 EVALUATION AND TESTING OF VAPOR RECOVERY EQUIPMENT~~

~~5.1 General Evaluation and Testing~~

~~Vapor recovery systems shall be subjected to evaluation and testing according to the specified performance standards, performance specifications, and test procedures at the applicant's expense.~~

Note: ~~To avoid the certification of a performance standard or performance specification which can not reasonably be met by all anticipated installations of a certified system, the applicant may specify (a) challenge mode(s) for system testing, subject to approval by the ARB Executive Officer. The ARB Executive Officer shall evaluate each system to determine the need for failure mode testing; and if such need is positively determined the ARB Executive Officer shall specify (a) failure mode(s) for system testing.~~

~~"Challenge mode testing" is testing conducted with a system installation intentionally modified so that the performance standard is more difficult to meet. The purpose of challenge mode testing is to provide a basis for determining performance specifications which reasonably can be met by all anticipated installations of a certified system.~~

~~"Failure mode testing" is testing conducted with a system installation intentionally modified so that it fails to meet its performance standard. The purpose of failure mode testing is to provide a basis for determining performance specifications which, when met, provide reasonable assurance that an installation of the system is not in the related failure mode.~~

- ~~(1) The ARB Executive Officer shall conduct all evaluation and testing unless the ARB Executive Officer determines that the equipment owner or operator shall contract for or conduct specified evaluation and testing on a case-by-case basis.~~
- ~~(2) All test personnel, regardless of their primary employer, shall be responsible solely to the ARB Executive Officer for the conduct of all testing activities required by this certification procedure. Such testing activities include, but are not limited to:
 - ~~(a) collection of data~~
 - ~~(b) calculation of results~~~~

NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~(c) reporting of results~~

- ~~(3) The ARB Executive Officer shall be present to monitor all testing and clarify the application of the procedures in novel circumstances; test data, calculations, and reported results shall be subsequently reviewed and evaluated by the ARB Executive Officer to determine their validity for inclusion in the Certification Report.~~

~~5.2—Alternative Evaluation and Testing~~

~~Certification procedures, other than specified above, shall only be used if prior written approval is obtained from the ARB Executive Officer. In order to secure the ARB Executive Officer's approval of an alternative certification procedure, the applicant is responsible for demonstrating to the ARB Executive Officer's satisfaction that the alternative certification procedure is equivalent to this certification procedure.~~

- ~~(1) Such approval shall be granted on a case-by-case basis only. Because of the evolving nature of technology and procedures for vapor recovery systems, such approval shall not be granted in subsequent cases without a new request for approval and a new demonstration of equivalency.~~
- ~~(2) Documentation of any such approvals, demonstrations, and approvals shall be maintained in the ARB Executive Officer's files and shall be made available upon request.~~

~~5.3—Preliminary Evaluation~~

~~A preliminary engineering evaluation shall be performed on each subject vapor recovery system to determine the conditions under which field testing, bench testing, and further engineering evaluation shall be performed.~~

~~Field testing, bench testing and engineering evaluation of subject vapor recovery systems and components shall be conducted in a manner, determined by the ARB Executive Officer, which shows consideration of the difficulties of actual in-use circumstances in which the systems and components are expected to be employed:~~

- ~~(1) The ARB Executive Officer shall determine any challenge and failure modes necessary to reflect the matrix of actual in-use circumstances expected for all installations of such systems. If such modes are determined, they shall be specified in writing to the applicant.~~

NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~(2) Field testing, bench testing and engineering evaluation shall include any challenge and failure modes for such systems as determined in (1) to provide for performance standards and performance specifications which can be met by the actual use of all installations of such systems.~~

~~5.4 Field Testing~~

~~The ARB Executive Officer shall require field testing for any performance standard or performance specification if, after its evaluation, field testing is the only acceptable alternative.~~

~~5.5 Bench Testing~~

~~The ARB Executive Officer shall require bench testing for any performance standard or performance specification if, after its evaluation, bench testing is necessary and a non-testing evaluation alternative is inadequate.~~

~~5.6 Evaluation~~

~~The ARB Executive Officer shall evaluate the results of testing for any performance standard or performance specification.~~

~~The ARB Executive Officer shall conduct a non-testing evaluation, after determining that testing is unnecessary, for any performance standard or performance specification.~~

~~6 DOCUMENTATION FOR CERTIFICATION~~

~~A Certification Report shall be prepared, at the applicant's expense, documenting the preceding components:~~

- ~~(1) Application for Certification~~
- ~~(2) Standards, Specifications, and Test Procedures~~
- ~~(3) Evaluation and Testing of the Vapor Recovery System~~

<p>Note: In addition to other required results, vapor recovery system test results shall be reported in units of pounds of hydrocarbon emitted per thousand gallons of fuel transferred for any results which are expressible in such units.</p>
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NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~The ARB Executive Officer shall consult with the applicant, shall review the report, may require revisions or more work on the components, and shall approve and sign the Certification Report after it is determined that:~~

- ~~(1) The Certification Report is complete.~~
- ~~(2) The Certification Report documents successful performance of the subject vapor recovery system according to the performance standards, performance specifications, and test procedures.~~

7—CERTIFICATION

~~The ARB Executive Officer shall not certify any system until after the system's Certification Report is approved and signed.~~

~~Evidence of certification shall be an ARB Executive Order (which shall reference the Certification Report) signed by the ARB Executive Officer.~~

~~After approval and signature of the ARB Executive Order, Certification Reports shall be maintained in the ARB Executive Officer's files and shall be made available upon request.~~

7.1—Variance from Certification Requirements

~~7.1.1—Any person who cannot comply with the requirements set forth in § 4 because of unreasonable economic hardship, unavailability of equipment or lack of technological feasibility may apply to the ARB Executive Officer for a variance. The application shall set forth:~~

- ~~(1) the specific grounds upon which the variance is sought;~~
- ~~(2) the proposed date(s) by which compliance with the requirements of § 4 will be achieved; and~~
- ~~(3) a plan reasonably detailing the method by which compliance will be achieved.~~

~~7.1.2—Upon receipt of an application for a variance, the ARB Executive Officer shall hold a hearing to determine whether, and under what conditions and to what extent, a variance from the requirements established by § 4 is necessary and will be permitted. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be published in at least one newspaper of general circulation and shall be sent to every person who requests such notice, not less than 30 days prior to the hearing.~~

NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~7.1.3 At least 30 days prior to the hearing the application for the variance shall be made available to the public for inspection. Interested members of the public shall be allowed a reasonable opportunity to testify at the hearing and their testimony shall be considered.~~

~~7.1.4 No variance shall be granted unless all of the following findings are made:~~

- ~~(1) that the applicant for the variance is, or will be, in violation of the requirements established by § 4;~~
- ~~(2) that due to unreasonable economic hardship, unavailability of equipment or lack of technological feasibility beyond the reasonable control of the applicant, requiring compliance would result in either:
 - ~~(a) an arbitrary or unreasonable taking of property, or~~
 - ~~(b) the practical closing and elimination of a lawful business; and~~~~
- ~~(3) that such taking or closing would be without a corresponding benefit in reducing air contaminants.~~

~~7.1.5 Any variance order shall include the date(s) by which compliance with the requirements of § 4 will be achieved and any other condition(s) including, where appropriate, increments of progress, that the ARB Executive Officer, as a result of the testimony received at the hearing, find necessary.~~

~~7.1.6 If the ARB Executive Officer determines that, due to conditions beyond the reasonable control of the applicant, the applicant needs an immediate variance from the requirements established by § 4, the ARB Executive Officer may hold a hearing without complying with the provisions of § 7.1.2 or § 7.1.3 above.~~

~~No variance granted under the provisions of this subparagraph may extend for a period of more than 45 days. The ARB Executive Officer shall maintain a list of persons who in writing have informed the ARB Executive Officer of their desire to be notified by telephone in advance of any hearing held pursuant to this section, and shall provide advance telephone notice to any such person.~~

~~7.1.7 Upon the application of any person, the ARB Executive Officer may review and for good cause modify or revoke any variance from the requirements of § 4 after holding a hearing in accordance with the provisions of this section.~~

~~7.2 Requirements for Keeping Documents with Cargo Tank~~

NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~The ARB Executive Officer, upon review of the application of certification of an individual cargo tank and any other pertinent data, and upon finding that the cargo tank complies with the requirements of § 4, shall return a copy of the application to the applicant with stamped acknowledgement of receipt thereon, or other appropriate documentation of certification. The stamped copy of the application or other documentation of certification shall be kept with the cargo tank at all times.~~

~~7.3 Requirements for Determinations of Compliance and Violation~~

~~The specifications of this section are primarily adopted pursuant to H&SC §§ 41962 and 41974. In particular, H&SC § 41974 provides that the penalty provisions of Article 3 (commencing with Section 42400) of Chapter 4, Division 26 of the H&SC shall apply to gasoline cargo tank vapor recovery system violations.~~

~~7.3.1 General Requirements~~

~~It is a general requirement that any certified vapor recovery system shall comply with the specifications of certification which result from the application of this procedure to such vapor recovery system. Failure of such vapor recovery system to comply is a violation of such vapor recovery system's specifications of certification.~~

~~7.3.2 Specific Requirements~~

~~It shall be a specification of certification that each cargo tank shall comply with the compliance requirements listed below; failure of a cargo tank to comply with these requirements shall be a violation of that cargo tank's specification of certification.~~

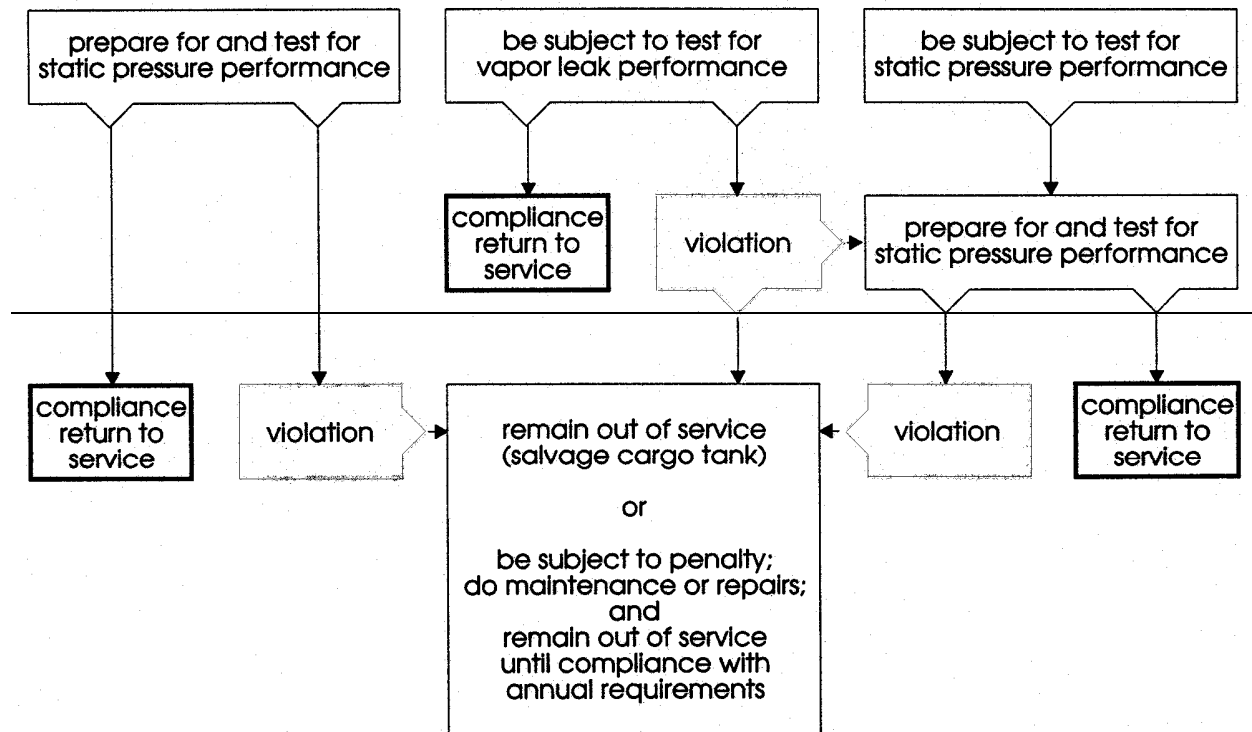
~~The flowchart on the next page is only a general guide to specific requirements. See §§ 7.3.2.1 through 7.3.2.4 for the specific requirements.~~

FLOWCHART

Requirements for Determinations of Compliance and Violation

Annual Requirements

Permanent Requirements



NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~7.3.2.1 — Yearly Requirements~~

- ~~(1) On a yearly basis, each cargo tank shall prepare for pressure testing to determine if that cargo tank complies with the yearly standard according to the appropriate test procedure (§ 4).~~
- ~~(2) Any such cargo tank which fails to demonstrate such compliance shall be subject to a penalty set by the ARB Executive Officer. (See H&SC Section 41974.)~~
- ~~(3) Any such cargo tank which fails to demonstrate compliance shall be taken out of service until such cargo tank is repaired, tested, and determined to comply.~~

~~7.3.2.2 — Permanent Requirements~~

- ~~(1) On a permanent basis, any cargo tank shall be subject to leak testing to determine if any such cargo tank complies with the performance standards for leaks (§ 4).~~

~~Any such cargo tank which fails to demonstrate such compliance shall prepare for pressure testing pending one of the following outcomes:~~

- ~~(a) If no maintenance has been performed on such cargo tank while preparing for testing, such cargo tank may be tested to determine if such cargo tank complies with a static pressure performance standard according to the appropriate test procedure (§ 4).~~
 - ~~(i) If such cargo tank complies, such cargo tank may be placed back in service with no penalty.~~
 - ~~(ii) If such cargo tank does not comply, such cargo tank shall be subject to a penalty set by the ARB Executive Officer (see H&SC Section 41974) and shall remain out of service until such cargo tank is repaired, tested, and determined to comply with a static pressure performance standard according to the appropriate test procedure (§ 4).~~
- ~~(b) If maintenance has been performed on such cargo tank while preparing for testing, such cargo tank shall be permanently removed from service (salvaged) or shall be tested to determine if such cargo tank complies with the yearly standard according to the appropriate test procedure (§ 4).~~

- ~~(i) If such cargo tank complies, such cargo tank may be placed back in~~

NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~service and shall be subject to a penalty set by the ARB Executive Officer. (See H&SC Section 41974.)~~

~~(ii) If such cargo tank does not comply, such cargo tank shall be subject to a penalty set by the ARB Executive Officer (see H&SC Section 41974) and shall remain out of service until such cargo tank is repaired, tested, and determined to comply with the yearly standard according to the appropriate test procedure (§ 4).~~

~~(c) If the cargo tank is taken out of service permanently, such cargo tank shall be subject to a penalty set by the ARB Executive Officer. (See H&SC Section 41974.)~~

~~(2) On a permanent basis, any cargo tank may be placed in preparation for pressure testing and shall be subject to static pressure performance testing to determine if any such cargo tank complies with a static pressure performance standard (§ 4).~~

~~(a) Any such cargo tank which fails to demonstrate such compliance shall be subject to a penalty set by the ARB Executive Officer (see H&SC Section 41974) and shall be taken out of service.~~

~~(b) Such cargo tank may be repaired and re-tested to determine if such cargo tank complies with the annual certification standard according to the appropriate test procedure (§ 4).~~

~~(i) If such cargo tank complies, the cargo tank may be placed back in service.~~

~~(ii) If such cargo tank does not comply, the cargo tank shall remain out of service until the cargo tank is repaired, tested, and determined to comply with the yearly according to the appropriate test procedure (§ 4).~~

~~7.3.2.3 Requirements in Preparation for Pressure Testing~~

~~**The requirement for an internal vapor valve must be met in preparation for pressure testing.**~~

~~Any cargo tank which is in preparation for pressure testing as required by § 7.3.2.1 (1), § 7.3.2.2 (1), or § 7.3.2.2 (2), shall prepare in one of the following ways:~~

NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~**Warning:** Under no circumstances shall the vapors in any cargo tank be purged or vented directly to the atmosphere. The only exception to this shall be for airport refuelers, which may purge or vent directly to the atmosphere, so long as no safety or ire regulations are violated.~~

~~“Airport refueler” is defined as a cargo tank which: has a total capacity no greater than 5,000 gallons; exclusively transports avgas and jet fuel; and is not licensed for public highway use.~~

~~The airport refueler exception terminates when there are two CARB-certified degassing vapor control systems which are appropriate for degassing airport refuelers.~~

~~(1) Five Minute Pressure Testing (TP-204.1)~~

- ~~(a) If such cargo tank contains product for delivery, such cargo tank shall deliver until empty; then~~
- ~~(b) Such cargo tank shall purge by a method not in violation of any regulations, including but not limited to:
 - ~~(i) purging with air to an incinerator certified by the ARB or permitted by a District;~~
 - ~~(ii) purging with water to an ARB certified vapor recovery system at a bulk plant or terminal which shall recover the purge water in conformity with all applicable regulations;~~
 - ~~(iii) purging with a liquid with a vapor pressure of less than four pounds Reid (<4 psi RVP) to an ARB certified vapor recovery system at a bulk plant of terminal; then~~~~
- ~~(c) Such cargo tank shall be empty.~~
- ~~(d) Such cargo tank shall adhere to the PRE-TEST PROTOCOL of (TP-204.1).~~

~~(2) One Minute Pressure Testing (TP-204.2)~~

~~Such cargo tank shall adhere to the PRE-TEST PROTOCOL of (TP-204.2).~~

NOTE: ENTIRE TEXT OF THIS PAGE IS PROPOSED FOR REPEAL

~~7.3.2.4 Requirements at Conclusion of Pressure Testing~~

~~The entire cargo tank, including tank, domes, dome vents, piping hose connections, adapters, couplings, hoses and delivery elbows shall be inspected for evidence of wear, damage, or misadjustment that could be a potential leak source. Any part found to be defective shall be adjusted, repaired or replaced as necessary~~

California Environmental Protection Agency



Vapor Recovery Certification Procedure

CP-204

Certification Procedure for
Vapor Recovery Systems of
Cargo Tanks

Adopted: April 12, 1996

Amended: March 17, 1999

Amended: November 7, 2014

[Note: This Certification Procedure is being amended and the entire March 17, 1999 version is being repealed. For ease of viewing, the document is shown in plain text.]

**California Environmental Protection Agency
Air Resources Board**

Vapor Recovery Certification Procedure

CP-204

**Certification Procedure for Vapor Recovery Systems of
Cargo Tanks**

A set of definitions common to all Certification and Test Procedures are in:

D-200 Definitions for Vapor Recovery Procedures

For the purposes of this procedure, the term “ARB” or “CARB” refers to the California Air Resources Board and the term “Executive Officer” refers to the ARB Executive Officer or his or her authorized representative or designee.

1. GENERAL INFORMATION AND APPLICABILITY

This procedure describes the process for certifying cargo tanks with a system that recovers vapors during the loading and unloading of gasoline. The cargo tank vapor recovery system prevents gasoline vapors from being emitted into the air.

Other vapor recovery certification procedures provide instructions for determining performance standards, performance specifications, and test procedures for equipment which recovers vapors emitted in association with gasoline marketing operations involving: dispensing facilities (CP-201 or CP-206); bulk plants and cargo tanks (CP-202); and supply lines, terminals, delivery lines, and cargo tanks (CP-203). This procedure establishes performance standards or specifications for cargo tanks, including trucks and trailers that transport gasoline. State law provides that no person shall operate, or allow the operation of, a cargo tank unless the cargo tank is certified and maintained in accordance with these procedures. Certifications shall be issued on an annual basis and shall expire on the last day of the month one year following the month of issuance of the certification.

1.1 Legislative and Regulatory Requirements of Other Agencies

In addition to ARB, other federal, state, or local government bodies may enforce laws and regulations applicable to vapor recovery systems. Cargo tank owners or operators are responsible for complying with all applicable laws and regulations including regulations of the California Highway Patrol, the Department of Forestry and Fire Protection, Office of the State Fire Marshal, and the Department of Industrial Relations, Division of Occupational Safety and Health.

2. SUMMARY OF CERTIFICATION PROCESS

The owner or operator of any cargo tank shall:

- (1) annually test such cargo tank(s) in accordance with the provisions of section (§) 3.1 and
- (2) annually apply for certification of such tank(s) in accordance with this certification procedure.

Tests shall be conducted by the owner or operator of the cargo tank, or a consultant or contractor, at the expense of the owner or operator. Prior to testing, the owner or operator shall notify the Executive Officer, no less than 48 hours prior to the start of test, of the date, time, and location of the test. The Executive Officer may observe or conduct tests referenced in § 3.1.

2.1 Application for Certification of an Individual Cargo Tank

The application for certification of individual cargo tanks shall be submitted to the Executive Officer through the ARB Online Cargo Tank Vapor Recovery Certification Program that can be accessed through the ARB webpage at www.arb.ca.gov/enf/cargotanks/cargotanks.htm, and shall contain the following information:

1. Name, address, email address, and telephone number of owner or operator, and company name (if applicable).
2. The sizes and number of compartments of the cargo tank.
3. The cargo tank number issued by CARB.
4. A statement that the tank has been tested according to the annual test procedures prescribed in § 3.1 of this certification procedure and complies with the corresponding performance standards.
5. All test data supporting the statement in item (4) above.
6. A declaration under penalty of perjury by the person conducting the test that the information contained in items (4) and (5) is true and correct.
7. A declaration under penalty of perjury by the applicant setting forth his or her property interest in the cargo tank and stating that all information is true and correct.

2.2 Compatibility

The cargo tank when connected to an ARB certified vapor recovery system at a bulk plant, terminal, gasoline dispensing facility (GDF) with an underground storage tank (UST), or GDF with an aboveground storage tank (AST) shall not prevent such systems from achieving the required vapor recovery efficiency and/or emission factor referenced in CP-202 for bulk plants, CP-203 for terminals, CP-201 for GDF with UST, and CP-206 for GDF with

AST. The connectors and fittings of the cargo tank shall be compatible with an ARB certified Phase I system installed at GDFs with USTs and ASTs. Such compatibility may be achieved by the use of adapters.

2.3 Condition of Certification

When the Executive Officer determines the application complies with all applicable provisions of this certification procedure, the Executive Officer shall issue a non-transferable and non-removable decal to be affixed to the right side of the cargo tank on the vertical mid-line, near the front of the vessel. Furthermore, the owner/operator shall ensure that the ARB issued Cargo Tank Number for the vessel shall be on the cargo tank in a location that can be readily seen. As a condition of certification, the Executive Officer shall return a copy of the application to the applicant with stamped acknowledgement of receipt thereon, or other appropriate documentation of certification. The stamped copy of the application or other documentation of certification shall be kept with the cargo tank at all times.

2.4 Fee

The Executive Officer shall charge a fee not to exceed the actual cost of certification to cover the cost of certifying cargo tanks. Payment of the fee is a condition of certification.

3. PERFORMANCE STANDARDS AND TEST PROCEDURES

3.1 Five Minute Performance Standard - Annual

All cargo tanks owner or operators shall conduct testing annually in accordance with TP-204.1, Determination of Five Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks, to verify compliance with performance standards referenced in this section. The results shall be submitted annually to the Executive Officer as provided by section 2.

3.1.1 Cargo Tanks or Compartment

The Five Minute performance standard listed in Table 3-1 shall be determined by TP-204.1, Determination of Five Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks.

Table 3-1
Pressure or Vacuum Change per Cargo Tank
or Compartment Tested

Allowed Pressure Change (inches WC)	Cargo Tank or Compartment Capacity (gallons)
0.50	2500 or more
0.75	2499 to 1500
1.00	1499 to 1000
1.25	999 or less

Table 3-2
Internal Vapor Valve Pressure Change
Per Cargo Tank or Compartment Tested

Allowed Pressure Change In 5 Minutes (inches WC)	Cargo Tank Or Compartment Capacity (gallons)
5.0	All

3.1.2 Internal Vapor Valve

Every cargo tank shall have an internal vapor valve. A check valve or cap is not an acceptable alternative. The internal vapor valve shall comply with the performance standard listed in Table 3-2 when tested in accordance with TP-204.1.

3.2 Daily Static Pressure Performance Standard

The Executive Officer shall conduct testing of cargo tanks in accordance with TP-204.2, Determination of One Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks, to determine compliance with applicable performance standards referenced in section 3.2.

3.2.1 The Daily Static Pressure Performance Standard, or one minute standard, is dependent on the headspace volume after loading and can vary from one load to the next. The one minute standard shall be determined by TP-204.2. All cargo tanks and compartment, including the internal vapor valve(s), shall be capable of meeting the one minute standard of Equation 3.2.

Equation 3.2

$$P_F = 18 \left(\frac{N}{18} \right)^{\left(\frac{V_s}{5 V_h} \right)}$$

where:

- P_F minimum allowable one-minute final pressure, inches water column
- V_s total cargo tank shell capacity, gallons
- V_h cargo tank headspace volume after loading, gallons
- 18 initial pressures at start of test, inches water column
- N see Table 3.2.1

Table 3.2.1

If V_s is	Then N is equal to
greater than or equal to 2,500 gallons	15.5 inches WC
between 1,500 and 2499 gallons	15.0 inches WC
between 1,000 and 1,499 gallons	14.5 inches WC
between 0 and 999 gallons	14.0 inches WC

3.2.2 Internal Vapor Valve Performance Standard

All cargo tank internal vapor vent valve(s) shall comply with the performance standard listed in Table 3.2.2 as determined by TP-204.2.

Table 3.2.2
Internal Vapor Valve Performance Standard

Test Time (minutes)	Maximum Allowable One-Minute Pressure Increase (inches WC)
1.0	1.1
2.0	2.2
3.0	3.3
4.0	4.4
5.0	5.5

The values in the right hand column are adjusted upward to account for a systematic bias caused by expansion in the headspace of the cargo tank subsequent to thermal conduction from the shell. The value of 5.5 at the bottom of the column corresponds equivalently to the 5.0 inches WC pressure increase allowed by the five minute performance standard.

Important: If individual compartments are to be tested, both V_s and V_h must be the volumes relating to that compartment alone, not all compartments.

3.3 Vapor and Liquid Leaks

The Executive Officer shall conduct testing of cargo tanks during the loading or after loading of gasoline to determine compliance with the vapor and liquid leak standards of this section in accordance with TP-204.3, Determination of Leak(s).

3.3.1 Vapor Leaks

A vapor leak is defined to be any source of gasoline vapors which causes a combustible gas detector meter reading exceeding 100 percent of the LEL as determined by TP-204.3, Determination of Leak(s).

3.3.2 Liquid Leaks

A liquid leak is defined to be liquid gasoline dripping at a rate in excess of three (3) drops per minute as determined by TP-204.3.

4. REQUIREMENTS FOR DETERMINATIONS OF COMPLIANCE AND VIOLATION

The specifications of this section are primarily adopted pursuant to Health and Safety Code sections (H&SC §§ 41962 and 41974). In particular, H&SC § 41974 provides that the penalty provisions of Article 3 (commencing with Section 42400) of Chapter 4, Division 26 of the H&SC shall apply to gasoline cargo tank vapor recovery system violations.

4.1 General Requirements

It is a general requirement that any certified vapor recovery system shall comply with the specifications of certification which result from the application of this procedure to such vapor recovery system. Failure of such vapor

recovery system to comply is a violation of such vapor recovery system's specifications of certification.

4.2 Specific Requirements

It shall be a specification of certification that each cargo tank shall comply with the compliance requirements listed below; failure of a cargo tank to comply with these requirements shall be a violation of that cargo tank's specification of certification.

4.2.1 Yearly Requirements

- a. On an annual basis, each cargo tank shall prepare for pressure testing to determine if that cargo tank complies with the five minute performance standard as determined by TP-204.1.
- b. Any such cargo tank which fails to demonstrate such compliance with five minute performance standard, daily static pressure performance standard, or vapor leak standard or liquid leak standard shall be subject to a penalty set by the Executive Officer. (See H&SC § 41974)
- c. Any such cargo tank which fails to demonstrate compliance shall be taken out of service until such cargo tank is repaired, tested, and determined to comply.

4.2.2 Daily Requirements

- a. On a permanent basis, any cargo tank shall be subject to daily static pressure performance standard testing.

Any such cargo tank which fails to demonstrate such compliance shall prepare for pressure testing pending one of the following outcomes:

- (1) If no maintenance has been performed on such cargo tank while preparing for testing, such cargo tank may be tested to determine if such cargo tank complies with a static pressure performance standard according to the appropriate test procedure.
 - i. If such cargo tank complies, such cargo tank may be placed back in service with no penalty.
 - ii. If such cargo tank does not comply, such cargo tank shall be subject to a penalty set by the Executive Officer (see H&SC § 41974) and shall remain out of

service until such cargo tank is repaired, tested, and determined to comply with the annual Five Minute Performance Standard as determined by TP-204.1.

- (2) If maintenance has been performed on such cargo tank while preparing for testing, such cargo tank shall be permanently removed from service (salvaged) or shall be tested to determine if such cargo tank complies with the yearly standard according to the appropriate test procedure.
 - i. If such cargo tank complies, such cargo tank may be placed back in service and shall be subject to a penalty set by the Executive Officer. (See H&SC § 41974)
 - ii. If such cargo tank does not comply, the owner or operator of the cargo tank shall be subject to a penalty set by the Executive Officer (see H&SC § 41974) and shall remain out of service until such cargo tank is repaired, tested, and determined to comply with the yearly standard according to the appropriate test procedure.
- (3) If the cargo tank is taken out of service permanently, such cargo tank shall be subject to a penalty set by the Executive Officer. (See H&SC § 41974)

4.3 Other Requirements

On a permanent basis, any cargo tank shall be subject to annual and daily static pressure performance testing to determine if any such cargo tank complies with the applicable annual and daily static pressure performance standards.

- 4.3.1 Any such cargo tank which fails to demonstrate such compliance shall be subject to a penalty set by the Executive Officer (see H&SC 41974) and shall be taken out of service.
- 4.3.2 Such cargo tank may be repaired and re-tested to determine if such cargo tank complies with the annual certification standard according to the appropriate test procedure.
 - a. If such cargo tank complies, the cargo tank may be placed back in service.
 - b. If such cargo tank does not comply, the cargo tank shall remain out of service until the cargo tank is repaired, tested, and

determined to comply with the annual performance standard listed in section 3.1 of this procedure.

5. ALTERNATE TEST PROCEDURES

Test procedures other than those specified in this certification procedure shall be used only if prior written approval is obtained from the Executive Officer. A test procedure is a methodology used to determine, with a high degree of accuracy, precision, and reproducibility, the value of a specified parameter. Once the test procedure is conducted, the results are compared to the applicable performance standard to determine the compliance status of the facility.

5.1 Alternate Test Procedures for Certification Testing

The Executive Officer shall approve, as required, those procedures necessary to verify the proper performance of the system.

5.2 Request for Approval of Alternate Test Procedure

Any person may request approval of an alternative test procedure. The request shall include the proposed test procedure, including equipment specifications and, if appropriate, all necessary equipment for conducting the test. If training is required to properly conduct the test, the proposed training program shall be included.

5.3 Response to Request

The Executive Officer shall respond within fifteen (15) days of receipt of a request for approval and indicating that a formal response will be sent within sixty (60) days. If the Executive Officer determines that an adequate evaluation cannot be completed within the allotted time, the Executive Officer shall explain the reason for the delay, and will include the increments of progress such as test protocol review and comment, testing, data review, and final determination. If the request is determined to be incomplete or unacceptable, the Executive Officer shall respond with identification of any deficiencies. The Executive Officer shall issue a determination regarding the alternate procedure within sixty (60) days of receipt of an acceptable request.

5.4 Testing of Alternate Test Procedures

All testing to determine the acceptability of the alternate procedure shall be conducted by the Executive Officer or by a third party responsible to and under the direction and control of Executive Officer. Testing shall be conducted in accordance with the written procedures and instructions provided by the Executive Officer. The testing shall, at a minimum, consist of nine sets of data pairs, pursuant to U.S. Environmental Protection Agency (EPA) Reference Method 301, "Field Validation of Pollutant Measurement Methods from Various Waste Media", 40 CFR Part 63, Appendix A, 57

Federal Register page 61992. Criteria established in U.S. EPA Reference Method 301 shall be used to determine whether equivalency between the two test methods exists. For situations where Method 301 is not directly applicable, the Executive Officer shall establish equivalence based on the concepts of comparison with the established method and statistical analysis of bias and variance. Method approval of the procedure shall be granted, on a case-by-case basis, only after all necessary testing has been conducted. Because of the evolving nature of technology and procedures for vapor recovery systems, such approval may or may not be granted in subsequent cases without a new request for approval and additional testing to determine equivalency. If, after approval is granted, subsequent information demonstrates that equivalency between the two methods no longer meets the U.S. EPA Reference Method 301 requirements or the equivalent method established by the Executive Officer, the alternate status of the procedure shall be revoked by the Executive Officer.

5.5 Documentation of Alternate Test Procedures

Any such approvals for alternate test procedures and the evaluation testing results shall be maintained in the Executive Officer's files and shall be made available upon request. Any time an alternate procedure and the reference procedure are both conducted and yield different results, the results determined by the reference procedure shall be considered the true and correct results.

California Environmental Protection Agency



Vapor Recovery Test Procedure

TP-204.1

Determination of
Five Minute Static Pressure Performance of
Vapor Recovery Systems of
Cargo Tanks

Adopted: April 12, 1996
Amended: March 17, 1999
Amended: November 7, 2014

*[Note: The text is shown in ~~strikeout~~ to indicate deletions and underline to indicate additions.
[Bracketed text] is not part of the proposed amendment.]*

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**California Environmental Protection Agency
Air Resources Board**

Vapor Recovery Test Procedure

TP-204.1

**Determination of
Five Minute Static Pressure Performance of
Vapor Recovery Systems of Cargo Tanks**

1 APPLICABILITY

Definitions common to all certification and test procedures are in:

**~~D-200 Definitions for Certification Procedures and
Test Procedures for Vapor Recovery Procedures Systems~~**

For the purpose of this procedure, the term "ARB" ~~or "CARB"~~ refers to the ~~State of~~ California Air Resources Board, and the term "~~ARB~~Executive Officer" refers to the Executive Officer of the ARB or his or her authorized representative or ~~designee~~ designate.

1.1 General Applicability

This procedure ~~is used to determine compliance with~~ applies to the determination of the five minute static pressure performance standard referenced in Vapor Recovery Certification Procedure 204 (CP-204), "Certification Procedure for Vapor Recovery Systems of Cargo Tanks." ~~of a vapor recovery system of a cargo tank by fluid mechanical principles. This procedure may be used~~ applies to determine any vapor emissions the five minute static pressure associated with the dispensing of any fluid, although it is written to reflect application to the hydrocarbon vapors associated with the dispensing of gasoline.

~~1.2 Determinations of Compliance and Violation~~

~~Determinations of certain modes of compliance with and violation of certification specifications are outlined in § 9.~~

~~1.3 Modifications~~

~~Modification of this procedure may be necessary for vapors and fluids other than the hydrocarbon vapors associated with the dispensing of gasoline.~~

~~Any modification of this method shall be subject to approval by the ARB Executive Officer.~~

2 PRINCIPLE AND SUMMARY OF TEST PROCEDURE

~~The cargo tank, mounted on either the truck or trailer, is pressurized to 18 inches water column (WC) and the pressure in the system is then allowed to decay for five (5) minutes. Similarly in a separate test, the cargo tank is evacuated to negative six (-6) inches WC and the pressure in the system is then allow to decay for five (5) minutes. The acceptability of the final pressure or vacuum level is based on the capacity of the cargo tank and is listed in CP-204. The performance of the cargo tank internal vapor valve can be determined by pressurizing the cargo tank to 18 inches WC and then closing the internal vapor valves. The system is then allowed to decay for five (5) minutes. The acceptability of final pressure level for the internal vapor valve is listed in CP-204. is to be tested in a location where it will be protected from direct sunlight. The cargo tank, mounted on either the truck or trailer, is to be pressurized, isolated from the pressure source, and the pressure drop recorded to determine the rate of pressure change. A vacuum test (for annual certification criterion testing only) is to be conducted in the same manner. Annual recertification tests shall be conducted no more than sixty days prior to the issuance of the certification.~~

3 BIASES AND INTERFERENCES

~~This section is reserved for future specification. Thermal expansion due to direct sunlight on an exposed cargo tank can bias the results of this test procedure. Keep 100 percent of the length of the vapor space of a cargo tank in shade during testing.~~

4 SENSITIVITY, RANGE, AND PRECISION

~~This section is reserved for future specification.~~

45 EQUIPMENT

- 45.1 Source of air or inert gas capable of pressurizing tanks to 27.7 inches of water (1 psi) above atmospheric pressure.
- 45.2 Low pressure (5 psi divisions) regulator for controlling pressurization of tank.
- 45.3 Water manometer, or equivalent, with 0 to 25 inch range, with scale readings of 0.1 inch.
- 45.4 Test cap for vapor line with a shut-off valve for connection to the pressure

and vacuum supply hoses. The test cap is to be equipped with a tap for connecting the manometer.

45.5 Caps for liquid delivery line.

45.6 Vacuum pump of sufficient capacity to evacuate tank to ten inches of water.

45.7 Pressure and vacuum supply hose of 1/4 inch internal diameter.

45.8 In-line, pressure vacuum relief valve set to activate at one (1) psi and with a capacity equal to the pressurizing or evacuating pumps.

6 CALIBRATION PROCEDURE

~~This section is reserved for future specification.~~

57 PRE-TEST PROTOCOL

5.1 The requirement that each compartment shall have its own internal vapor valve must be met to conduct this test.

5.2 The following shall be performed for all cargo tanks subject to testing in accordance with this test procedure:

5.2.1 Cargo tank and trailers shall be empty of gasoline or product to conduct this test.

Warning: Under no circumstances shall the vapors in any cargo tank be purged or vented directly to the atmosphere.

5.2.2 Cargo tank shall be purged by one of the following methods:

(a) Air from the purged cargo tank shall be routed to an incinerator that is certified by ARB and permitted by a district.

(b) Cargo tank vapors shall be routed to an ARB certified vapor recovery system at a bulk plant or terminal when water is used to purge the cargo tank. The water can be reused. If the water is disposed of, it shall conform to all applicable federal, state, and local regulations.

(c) Cargo tank vapors shall be routed to an ARB certified vapor recovery system at a bulk plant or terminal when a liquid with a vapor pressure of less than four pounds Reid Vapor Pressure (<4 psi RVP) is used to purge the cargo tank.

(d) Any purging method or system must be approved in writing by the Executive Officer.

~~The cargo tank shall adhere to all of the other certification conditions in CP-204 (in addition to those requirements of CP-204 to which this test procedure applies).~~

68 TEST PROCEDURE

~~This procedure does not apply unless pressurized air lines or other equipment penetrate the cargo tank headspace. This test shall be conducted with product hoses and vapor hoses connected and exposed to the pressurized cargo tanks or compartments. The cargo tank shall meet the standards for all three tests in consecutive runs.~~

68.1 Static Pressure Performance, Positive Pressurization

~~8.1.1 Static Pressure Performance Measurement~~

68.1.1.1 ~~Open and close the dome covers.~~

68.1.1.2 Connect static electrical ground connections to tank. Attach the delivery and vapor hoses, remove the delivery elbows and plug the liquid delivery fittings.

68.1.1.3 Attach the test cap to the vapor recovery line of the cargo tank.

68.1.1.4 Connect the vacuum and pressure supply hose and the pressure-vacuum relief valve to the shut-off valve. Attach the pressure source to the hose. Attach a manometer to the pressure tap.

68.1.1.5 Connect compartments of the tank internally to each other if possible.

68.1.1.6 Applying air pressure slowly, pressurize the tank, or alternatively the first compartment, to 18 inches WC ~~of water~~.

68.1.1.7 Close the shut-off valve, allow the pressure in the cargo tank to stabilize (adjust the pressure if necessary to maintain 18 inches WC ~~of water~~), record the time and initial pressure.

~~68.4.1.8~~ At the end of five minutes, record the final time and pressure.

~~68.1.2.9~~ ~~Pressure Change from (+18) Inches of Water, Gauge~~ ~~8.1.2.1~~
Calculate and record the pressure change (inches WC ~~water column~~)
between ~~from~~ initial pressure of +18 inches WC ~~of water, gauge, to~~
and the final pressure.

~~6.1.10~~ ~~8.1.2.2~~ Repeat sections 6.1.6 through 6.1.9 for each compartment if
they ~~were~~ are not interconnected.

68.2 Static Pressure Performance, Vacuum Test (Negative Pressurization)

~~This procedure does not apply unless pressurized air lines or other equipment
penetrate the cargo tank headspace.~~

~~8.2.1~~ Static Pressure Performance Measurement

~~68.2.4.1~~ Connect vacuum source to pressure and vacuum supply hose
referenced in section 6.1.4.

~~68.2.4.2~~ Slowly evacuate the tank, or alternatively the first compartment, to six
(6) inches WC ~~of water~~ vacuum. Close the shut-off valve, allow the
pressure in the cargo tank to stabilize (adjust the pressure if
necessary to maintain a vacuum or negative six (-6) inches WC ~~of~~
~~water vacuum~~), and record the initial pressure and time. At the end
of five (5) minutes, record the final pressure and time.

~~68.2.2.3~~ ~~Pressure Change from (-6) Inches of Water, Gauge~~ Calculate and
record the pressure change (inches WC ~~water column~~) from the initial
-6 inches of WC ~~water, gauge, to~~ and the final pressure. If
pressurized air lines or other equipment penetrate the cargo tank
headspace, record and report the value of the pressure change as
zero.

~~6.2.4~~ Repeat sections 6.2.2 to 6.2.3 for each compartment if they are not
interconnected.

68.3 Internal Vapor Valve Performance, Positive Pressurization

~~68.3.1~~ ~~Static Pressure Performance Measurement~~ ~~8.3.1.1~~ After completing
the vacuum and pressure tests (section 6.1 and 6.2), pressurize the
tank as in section 68.1.6 ~~above~~ to 18 inches WC ~~of water~~.

~~68.3.1.2~~ Close the cargo tank's internal valve(s) including the internal vapor valve(s), thereby isolating the vapor return line and manifold from the cargo tank.

~~68.3.1.3~~ Relieve the pressure in the vapor return line to atmospheric pressure.

~~68.3.1.4~~ Seal the vapor return line and after five (5) minutes record the final gauge pressure existing in the vapor return line and manifold.

~~68.3.25~~ Pressure Change from (+18) Inches of Water, Gauge Calculate the pressure change (inches WC water column) from + 18 inches WC of water, gauge, to the final pressure.

7 REQUIREMENTS AT CONCLUSION OF PRESSURE TESTING

The entire cargo tank, including tank, domes, dome vents, piping hose connections, adaptors, couplings, hoses and delivery elbows shall be inspected for evidence of wear, damage, or maladjustment that could be a potential leak source. Any part found to be defective shall be adjusted, repaired or replaced as necessary.

9 DETERMINATIONS OF COMPLIANCE AND VIOLATION

~~Determinations of certain modes of compliance with and violation of certification specifications are outlined below:~~

~~9.1 Static Pressure Performance Standard~~

~~9.1.1 Determination of Compliance~~

~~Compliance is determined if the pressure change from ϕ 8.1.2 or ϕ 8.2.2 is equal to or less than the limit specified in CP-204 ϕ 4.1.1.1.~~

~~9.1.2 Determination of Violation~~

~~Violation is determined if the pressure change from ϕ 8.1.2 or ϕ 8.2.2 is greater than the limit specified in CP-204 ϕ 4.1.1.1.~~

~~9.2 Internal Vapor Valve Performance Standard~~

~~9.2.1 Determination of Compliance~~

~~Compliance is determined if the pressure change from 8.3.2 is equal to or less than the limit specified in CP-204 4.1.3.1.~~

~~9.2.2 Determination of Violation~~

~~Violation is determined if the pressure change from 8.3.2 is greater than the limit specified in CP-204 4.1.3.1.~~

~~10 QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)~~

~~This section is reserved for future specification.~~

~~11 RECORDING DATA~~

~~This section is reserved for future specification.~~

~~12 CALCULATING RESULTS~~

~~This section is reserved for future specification.~~

813 REPORTING RESULTS

Results for a given cargo tank shall be reported by the company responsible for testing as listed on the 48 hour test notification that was submitted to the Board. Results can be submitted through the ARB Online Cargo Tank Vapor Recovery Certification Program that can be accessed through the ARB webpage at www.arb.ca.gov/enf/cargotanks/cargotanks.htm. ~~This section is reserved for future specification~~

914 ALTERNATIVE TEST PROCEDURES

9.1 U.S. EPA Method 27

U.S. EPA Method 27 referenced in the Code of Federal Regulations – Title 40, Chapter I, Subchapter C, Part 63, Subpart R, section 63.425(e), (as last amended on December 19, 2003) may be used an alternate to the procedure described in Section 6 with the following exceptions:

- a. The purging of vapor from cargo tanks and compartments shall be conducted in accordance with section 5.

- b. Results of each test conducted shall comply with the performance standards reference in section 3.1 CP-204 without taking the arithmetic mean of two successive results as allowed by section 40 CFR 63.425(e)
- c. Results from three consecutive tests (pressure, vacuum, and internal vapor valve) run in any sequence shall comply with performance standards reference in section 3.1 of CP-204.

9.2 Other Alternate Test Procedures

This test procedure shall be conducted as specified. Modifications to this test procedure shall not be used to determine compliance unless prior written approval has been obtained from the Executive Officer, pursuant to section 5 of Certification Procedure 204 (CP-204). ~~Test procedures, other than specified above, shall only be used if prior written approval is obtained from the ARB Executive Officer. In order to secure the ARB Executive Officer's approval of an alternative test procedure, the applicant is responsible for demonstrating to the ARB Executive Officer's satisfaction that the alternative test procedure is equivalent to this test procedure.~~

- ~~(1) — Such approval shall be granted on a case-by-case basis only. Because of the evolving nature of technology and procedures for vapor recovery systems, such approval shall not be granted in subsequent cases without a new request for approval and a new demonstration of equivalency.~~
- ~~(2) — Documentation of any such approvals, demonstrations, and approvals shall be maintained in the ARB Executive Officer's files and shall be made available upon request.~~

~~15 REFERENCES~~

~~This section is reserved for future specification.~~

~~16 FIGURES~~

~~This section is reserved for future specification.~~

California Environmental Protection Agency



Vapor Recovery Test Procedure

TP-204.1

Determination of
Five Minute Static Pressure Performance of
Vapor Recovery Systems of
Cargo Tanks

Adopted: April 12, 1996
Amended: March 17, 1999
Amended: November 7, 2014

**California Environmental Protection Agency
Air Resources Board**

Vapor Recovery Test Procedure

TP-204.1

**Determination of
Five Minute Static Pressure Performance of
Vapor Recovery Systems of Cargo Tanks**

1 APPLICABILITY

Definitions common to all certification and test procedures are in:

D-200 Definitions for Vapor Recovery Procedures

For the purpose of this procedure, the term "ARB" or "CARB" refers to the California Air Resources Board, and the term "Executive Officer" refers to the Executive Officer of the ARB or his or her authorized representative or designee.

1.1 General Applicability

This procedure is used to determine compliance with the five minute static pressure performance standard referenced in Vapor Recovery Certification Procedure 204 (CP-204), "Certification Procedure for Vapor Recovery Systems of Cargo Tanks." This procedure may be used to determine the five minute static pressure associated with the dispensing of any fluid, although it is written to reflect application to the hydrocarbon vapors associated with the dispensing of gasoline.

2 PRINCIPLE AND SUMMARY OF TEST PROCEDURE

The cargo tank, mounted on either the truck or trailer, is pressurized to 18 inches water column (WC) and the pressure in the system is then allowed to decay for five (5) minutes. Similarly in a separate test, the cargo tank is evacuated to negative six (-6) inches WC and the pressure in the system is then allowed to decay for five (5) minutes. The acceptability of the final pressure or vacuum level is based on the capacity of the cargo tank and is listed in CP-204. The performance of the cargo tank internal vapor valve can be determined by pressurizing the cargo tank to 18 inches WC and then closing the internal vapor valves. The system is then allowed to decay for five (5) minutes. The acceptability of final pressure level for the internal

vapor valve is listed in CP-204.

3 BIASES AND INTERFERENCES

Thermal expansion due to direct sunlight on an exposed cargo tank can bias the results of this test procedure. Keep 100 percent of the length of the vapor space of a cargo tank in shade during testing.

4 EQUIPMENT

- 4.1 Source of air or inert gas capable of pressurizing tanks to 27.7 inches of water (1 psi) above atmospheric pressure.
- 4.2 Low pressure (5 psi divisions) regulator for controlling pressurization of tank.
- 4.3 Water manometer, or equivalent, with 0 to 25 inch range, with scale readings of 0.1 inch.
- 4.4 Test cap for vapor line with a shut-off valve for connection to the pressure and vacuum supply hoses. The test cap is to be equipped with a tap for connecting the manometer.
- 4.5 Caps for liquid delivery line.
- 4.6 Vacuum pump of sufficient capacity to evacuate tank to ten inches of water.
- 4.7 Pressure and vacuum supply hose of 1/4 inch internal diameter.
- 4.8 In-line, pressure vacuum relief valve set to activate at one (1) psi and with a capacity equal to the pressurizing or evacuating pumps.

5 PRE-TEST PROTOCOL

- 5.1 The requirement that each compartment shall have its own internal vapor valve must be met to conduct this test.
- 5.2 The following shall be performed for all cargo tanks subject to testing in accordance with this test procedure:
 - 5.2.1 Cargo tank and trailers shall be empty of gasoline or product to conduct this test.

Warning: Under no circumstances shall the vapors in any cargo tank be purged or vented directly to the atmosphere.

5.2.2 Cargo tank shall be purged by one of the following methods:

- (a) Air from the purged cargo tank shall be routed to an incinerator that is certified by ARB and permitted by a district.
- (b) Cargo tank vapors shall be routed to an ARB certified vapor recovery system at a bulk plant or terminal when water is used to purge the cargo tank. The water can be reused. If the water is disposed of, it shall conform to all applicable federal, state, and local regulations.
- (c) Cargo tank vapors shall be routed to an ARB certified vapor recovery system at a bulk plant or terminal when a liquid with a vapor pressure of less than four pounds Reid Vapor Pressure (<4 psi RVP) is used to purge the cargo tank.
- (d) Any purging method or system must be approved in writing by the Executive Officer.

6 TEST PROCEDURE

This test shall be conducted with product hoses and vapor hoses connected and exposed to the pressurized cargo tanks or compartments. The cargo tank shall meet the standards for all three tests in consecutive runs.

6.1 Static Pressure Performance, Positive Pressurization

- 6.1.1 Open and close the dome covers.
- 6.1.2 Connect static electrical ground connections to tank. Attach the delivery and vapor hoses, remove the delivery elbows and plug the liquid delivery fittings.
- 6.1.3 Attach the test cap to the vapor recovery line of the cargo tank.
- 6.1.4 Connect the vacuum and pressure supply hose and the pressure-vacuum relief valve to the shut-off valve. Attach the pressure source to the hose. Attach a manometer to the pressure tap.

- 6.1.5 Connect compartments of the tank internally to each other if possible.
- 6.1.6 Applying air pressure slowly, pressurize the tank, or alternatively the first compartment, to 18 inches WC.
- 6.1.7 Close the shut-off valve, allow the pressure in the cargo tank to stabilize (adjust the pressure if necessary to maintain 18 inches WC), record the time and initial pressure.
- 6.1.8 At the end of five minutes, record the final time and pressure.
- 6.1.9 Calculate and record the pressure change (inches WC) between initial pressure of +18 inches WC and the final pressure.
- 6.1.10 Repeat sections 6.1.6 through 6.1.9 for each compartment if they are not interconnected.
- 6.2 Static Pressure Performance, Vacuum Test (Negative Pressurization)
 - 6.2.1 Connect vacuum source to pressure and vacuum supply hose referenced in section 6.1.4.
 - 6.2.2 Slowly evacuate the tank, or alternatively the first compartment, to six (6) inches WC vacuum. Close the shut-off valve, allow the pressure in the cargo tank to stabilize (adjust the pressure if necessary to maintain a vacuum or negative six (-6) inches WC), and record the initial pressure and time. At the end of five (5) minutes, record the final pressure and time.
 - 6.2.3 Calculate and record the pressure change (inches WC) from the initial 6 inches of WC and the final pressure. If pressurized air lines or other equipment penetrate the cargo tank headspace, record and report the value of the pressure change as zero.
 - 6.2.4 Repeat sections 6.2.2 to 6.2.3 for each compartment if they are not interconnected.
- 6.3 Internal Vapor Valve Performance, Positive Pressurization
 - 6.3.1 After completing the vacuum and pressure tests (section 6.1 and 6.2), pressurize the tank as in section 6.1.6 18 inches WC.

- 6.3.2 Close the cargo tank's internal valve(s) thereby isolating the vapor return line and manifold from the cargo tank.
- 6.3.3 Relieve the pressure in the vapor return line to atmospheric pressure.
- 6.3.4 Seal the vapor return line and after five (5) minutes record the final gauge pressure existing in the vapor return line and manifold.
- 6.3.5 Calculate the pressure change (inches WC) from + 18 inches WC to the final pressure.

7 REQUIREMENTS AT CONCLUSION OF PRESSURE TESTING

The entire cargo tank, including tank, domes, dome vents, piping hose connections, adaptors, couplings, hoses and delivery elbows shall be inspected for evidence of wear, damage, or maladjustment that could be a potential leak source. Any part found to be defective shall be adjusted, repaired or replaced as necessary.

8 REPORTING RESULTS

Results for a given cargo tank shall be reported by the company responsible for testing as listed on the 48 hour test notification that was submitted to the Board. Results can be submitted through the ARB Online Cargo Tank Vapor Recovery Certification Program that can be accessed through the ARB webpage at www.arb.ca.gov/enf/cargotanks/cargotanks.htm.

9 ALTERNATE TEST PROCEDURES

9.1 U.S. EPA Method 27

U.S. EPA Method 27 referenced in the Code of Federal Regulations – Title 40, Chapter I, Subchapter C, Part 63, Subpart R, section 63.425(e), (as last amended on December 19, 2003) may be used as an alternate to the procedure described in Section 6 with the following exceptions:

- a. The purging of vapor from cargo tanks and compartments shall be conducted in accordance with section 5.
- b. Results of each test conducted shall comply with the performance standards reference in section 3.1 CP-204 without taking the arithmetic

mean of two successive results as allowed by section 40 CFR 63.425(e)

- c. Results from three consecutive tests (pressure, vacuum, and internal vapor valve) run in any sequence shall comply with performance standards reference in section 3.1 of CP-204.

9.2 Other Alternate Test Procedures

This test procedure shall be conducted as specified. Modifications to this test procedure shall not be used to determine compliance unless prior written approval has been obtained from the Executive Officer, pursuant to section 5 of Certification Procedure 204 (CP-204).

California Environmental Protection Agency



Vapor Recovery Test Procedures

TP-204.3

Determination of Leak(s)

Adopted: April 12, 1996
Amended: March 17, 1999
Amended: November 7, 2014

*[Note: The text is shown in ~~strikeout~~ to indicate deletions and underline to indicate additions.
[Bracketed text] is not part of the proposed amendment.]*

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**California Environmental Protection Agency
Air Resources Board**

Vapor Recovery Test Procedure

TP-204.3

Determination of Leak(s)

1 APPLICABILITY

Definitions common to all certification and test procedures are in:

**D-200 Definitions for ~~Certification Procedures and Test Procedures~~
for Vapor Recovery Procedures Systems**

For the purpose of this procedure, the term "ARB" or "CARB" refers to the ~~State of~~ California Air Resources Board, and the term "ARB-Executive Officer" refers to the Executive Officer of the ARB or his or her authorized representative or designee ~~delegate~~.

1.1 General Applicability

The procedure is used to determine ~~applies to the determination of~~ the leak-tightness of vapor control systems used in the loading of gasoline cargo tanks. It may be utilized to determine the leak-tightness of gasoline cargo tanks during loading without taking the delivery tank out of service and to determine the leak-tightness of vapor control systems at gasoline terminals and bulk plants at any time. It is also ~~applicable for gasoline cargo tanks during loading operations and is effective to determine leak tightness when only if~~ the vapor control system does not create back-pressure in excess of the pressure limits of the cargo tank certification-leak-test (18 inches of water column (WC gauge) referenced in CP-204, Certification Procedure for Vapor Recovery Systems of Cargo Tanks. ~~This procedure does not supersede any district local APCD procedure regarding gasoline loading operations which are more stringent.~~

~~1.2 Determinations of Compliance and Violation~~

~~Determinations of certain modes of compliance with and violation of certification specifications are outlined in § 9.~~

~~1.3 Modifications~~

~~Modification of this procedure may be necessary for vapors and fluids other than the~~

~~hydrocarbon vapors associated with the dispensing of gasoline.~~

~~Any modification of this method shall be subject to approval by the ARB Executive Officer.~~

2 PRINCIPLE AND SUMMARY OF TEST PROCEDURE

A portable instrument is used to detect VOC leaks from individual sources. A leak definition concentration based on a reference compound is specified in each applicable regulation. This procedure is intended to locate and classify leaks only, and is not to be used as a direct measure of mass emission rates from individual sources.

~~(See ALTERNATIVE TEST PROCEDURES, EPA Method 21.)~~

~~In principle, this test procedure is intended to be consistent with EPA Method 21.~~

~~While this test procedure provides more detail on some matters than EPA Method 21, nothing in this procedure shall be read, interpreted, or applied in a manner inconsistent with EPA Method 21.~~

3 BIASES AND INTERFERENCES

Individual Vapor Leak Check Duration

The duration results of vapor leak checks will ~~are~~ systematically biased the results positively (toward a determination of violation) ~~by leak check duration.~~ To control this bias, leak checks shall be performed individually with a fresh air purge between each leak check. Each leak check shall have a duration of less than twice the instrument response time (typically, less than sixteen seconds). ~~Longer~~ Leak checks with a duration of greater than twice the instrument response time are invalid. The probe must be purged with fresh air for more than two instrument response times (more than sixteen seconds) between individual leak checks.

~~4 SENSITIVITY, RANGE, AND PRECISION~~

~~This section is reserved for future specification.~~

~~4~~5 EQUIPMENT AND SUPPLIES

~~5~~4.1 Manometer

Liquid manometer, or equivalent, capable of measuring up to 7500 pascals (30 inches WC_{H₂O}) gauge pressure with ± 25 pascals (0.1 inch H₂O_{WC}) precision.

~~4~~5.2 Combustible gas detector

A portable hydrocarbon gas analyzer with associated sampling line and probe using catalytic oxidation to detect and measure concentrations of combustible gas in air.

45.2.1 Safety

Personnel shall assume that the combustible gas detector will be operated in an explosive atmosphere and comply with all pertinent regulations.

45.2.2 Range

Minimum range of 0-100 percent of the lower explosive limit (LEL) expressed as propane (0 to 21,000 ppm).

45.2.3 Probe Diameter

Sampling probe internal diameter of 0.6235 cm (1/4 inch).

45.2.4 Probe Length

Probe sampling line of sufficient length for easy maneuverability during testing.

45.2.5 Response Time

Response time to 90 percent of the final stable reading shall be ~~of~~ less than 8 seconds for detector with sampling line and probe attached.

45.3 Stopwatch

Accurate and precise to within ± 0.2 sec.

45.4 Graduated cylinder

Glass or plastic. 1 milliliter (mL) graduations, minimum volume 50 mL.

56 CALIBRATION PROCEDURE

Calibration is part of each application of the test procedure, see §section 68.2.

7 ~~PRE-TEST PROTOCOL~~

~~This section is reserved for future specification.~~

68 TEST PROCEDURE

68.1 Pressure

Place a pressure tap in the terminal or bulk plant vapor control system, as close as reasonably possible to the connection with the cargo tank and before any check valves in the terminal or bulk plant recovery system. Connect the manometer. Record the pressure periodically during testing.

68.2 Calibration

Calibrate the combustible gas detector with 2.1 percent by volume (21,000 ppm) propane in air for 100 percent LEL response. Calibration gas shall be traceable to NIST-SRM.

68.3 Monitoring Procedure - Vapor Leaks

During loading, check the periphery of all potential sources of leakage of the cargo tank and of the terminal or bulk plant, vapor collection system with a combustible gas detector.

68.3.1 Probe Distance

For a mobile leak source (e.g. cargo tank) the detector probe inlet shall be 2.5 cm from the potential leak source. The distance can be maintained during monitoring by putting a 2.5 cm extension on the probe tip.

For a stationary leak source (e.g. loading rack) the probe tip shall be placed at the surface of the suspected leak interface except for a moving part, such as a rotating shaft, for which the probe tip distance shall be 1 cm. The distance can be maintained during monitoring by putting a 1 cm extension on the probe tip.

68.3.2 Probe Movement

Move the probe slowly (approximately 4 cm/sec). If there is any meter deflection at a potential leak source, move the probe to locate the point of highest meter response.

68.3.3 Probe Position

The probe inlet shall be positioned in the path of the vapor flow from a leak so as to maximize the measured concentration.

68.3.4 Wind

Attempt to block the wind from the area being monitored.

68.3.5 Detector Response Time

The detector response time must be equal to or less than 8 seconds and the detector shall not probe any potential leak source for longer than twice the detector response time.

68.3.6 Recording

Record the highest detector reading and location for each leak being monitored.

68.4 Monitoring Procedure - Liquid Leaks

Check cargo tank and bulk plant or terminal system for liquid leaks. Count the number of drops for two minutes.

68.4.1 For Liquid Leaks during Disconnect

Capture liquid lost upon disconnect and measure the volume using graduated cylinder.

68.4.2 Recording

For liquid leaks, record location and number of drops per minute. For liquid leaks during disconnect, record location (loading arm, recovery arm), cargo tank and volume for each consecutive disconnects.

~~9 DETERMINATIONS OF COMPLIANCE AND VIOLATION~~

~~Determinations of certain modes of compliance with and violation of certification specifications are outlined below.~~

Note: ~~Regarding liquid leaks from cargo tanks, and regarding vapor and liquid leaks from bulk plant and terminal equipment; the compliance status determined by this procedure is the final determination. Regarding vapor leaks from cargo tanks, the final determination of compliance status depends upon the application of all of the applicable requirements of CP-204.~~

~~The compliance status determined by this procedure shall not supersede any compliance status determination by TP-204.1 or TP-204.2.~~

~~For convenience, the~~The performance standards shall be specified below as they

appear in CP-204 § 4.2:

Vapor and Liquid Leak Performance Standards

The performance standards for leak(s) from any cargo tank is that no liquid leak or vapor leak shall occur from any cargo tank according to the following definitions:

Note: A cargo tank shall not be required to comply with any leak criteria or performance standards except those that relate directly to the cargo tank; such leaks are "cargo tank leaks"; examples of leaks which are not cargo tank leaks are:

- (1) leaks involving bulk plant or terminal equipment including
- (2) leaks from couplings between cargo tank equipment and bulk plant or terminal equipment, unless the coupling was brought into the bulk plant or terminal facility on the cargo tank vehicle.

Leaks of types (1) and (2) are not evidence of non-compliance of the cargo tank per this procedure.

(1) Vapor Leak

A vapor leak is defined to be any source of gasoline vapors which causes a combustible gas detector meter reading exceeding 100 percent of the LEL when measured at a distance of one inch (2.5 cm) for a mobile leak source (e.g. cargo tank) or 1 cm for a stationary leak source (e.g. loading rack). A marginal vapor leak may be verified by conducting a pressure/vacuum leak test. A vapor leak does not include any vapor resulting from liquid spillage or leakage.

(2) Liquid Leak

A liquid leak is defined to be the dripping of liquid organic compounds at a rate in excess of three (3) drops per minute from any single leak source other than the liquid fill line and vapor line disconnect operations. A liquid leak from liquid fill line and vapor line disconnect operations is defined to be:

- (1) more than two (2) milliliters liquid drainage per disconnect from a top loading operation; or
- (2) more than ten (10) milliliters liquid drainage from a bottom loading operation.

~~Such liquid drainage for disconnect operations shall be determined by computing the average drainage from three consecutive disconnects at any one permit unit.~~

~~Other Performance Standards~~

~~Other performance standards may be required at the applicant's request or based on evaluation by the ARB Executive Officer.~~

~~9.1 Vapor Leak Performance Standard~~

~~9.1.1 Determination of Compliance~~

~~Compliance is determined if no vapor leak is recorded (§ 8.3.5) which exceeds the performance standard.~~

~~9.1.2 Determination of Violation~~

~~Violation is determined if a vapor leak is recorded (§ 8.3.5) which exceeds the performance standard.~~

~~9.2 Liquid Leak Performance Standard~~

~~9.2.1 Determination of Compliance~~

~~Compliance is determined if no liquid leak is recorded (§ 8.4.2) which exceeds the performance standard.~~

~~9.2.2 Determination of Violation~~

~~Violation is determined if a liquid leak is recorded (§ 8.4.2) which exceeds the performance standard.~~

~~10 QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)~~

~~This section is reserved for future specification.~~

~~11 RECORDING DATA~~

~~This section is reserved for future specification.~~

~~12 CALCULATING RESULTS~~

~~This section is reserved for future specification.~~

~~13 REPORTING RESULTS~~

~~This section is reserved for future specification.~~

~~714 ALTERNATIVE TEST PROCEDURES~~

714.1 U.S. EPA Method 21 - Determination of Volatile Organic Compound Leaks

U.S. EPA Method 21 is an approved alternative procedure as it applies to the performance of this test procedure subject to the provisions of 6.3.1 regarding probe distances.

714.2 Other Alternative Test Procedures

This test procedure shall be conducted as specified. Modifications to this test procedure shall not be used to determine compliance unless prior written approval has been obtained from the Executive Officer, pursuant to section 5 of Certification Procedure 204 (CP-204). Test procedures, other than specified above, shall only be used if prior written approval is obtained from the ARB Executive Officer. In order to secure the ARB Executive Officer's approval of an alternative test procedure, the applicant is responsible for demonstrating to the ARB Executive Officer's satisfaction that the alternative test procedure is equivalent to this test procedure.

- ~~(1) Such approval shall be granted on a case-by-case basis only. Because of the evolving nature of technology and procedures for vapor recovery systems, such approval shall not be granted in subsequent cases without a new request for approval and a new demonstration of equivalency.~~
- ~~(2) Documentation of any such approvals, demonstrations, and approvals shall be maintained in the ARB Executive Officer's files and shall be made available upon request.~~

~~15 REFERENCES~~

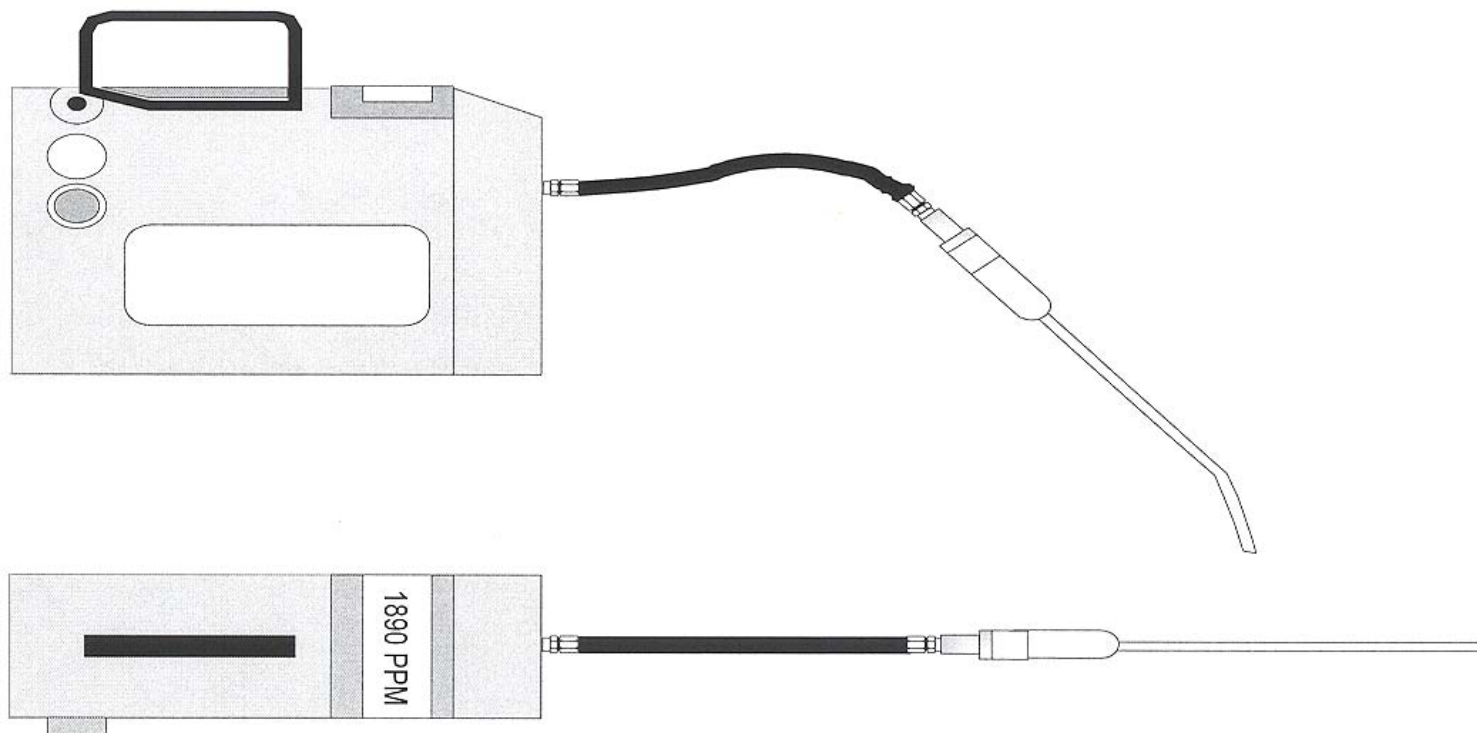
~~This section is reserved for future specification.~~

~~816 FIGURES~~

Each figure provides an illustration of an implementation which conforms to the requirements of this test procedure; other implementations which so conform are acceptable, too. Any specifications or dimensions provided in the figures are for example only, unless such specifications or dimensions are provided as requirements in the text of this or some other required test procedure.

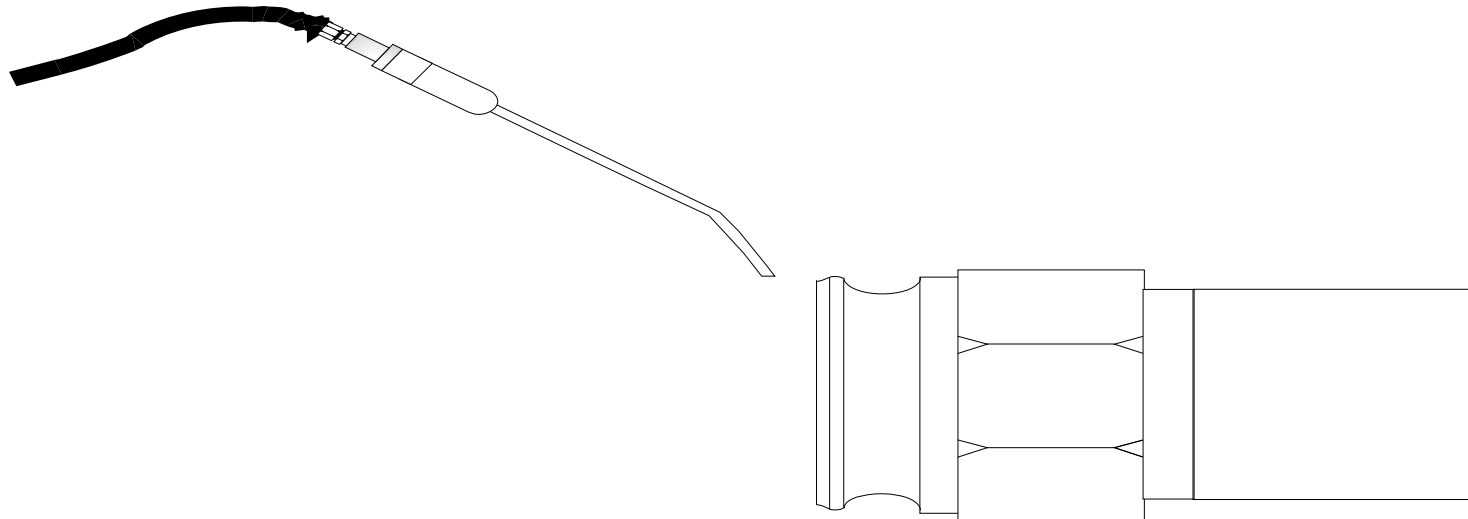
Figures 1 and 2 provide illustrations of a combustible gas meter alone and in use.

FIGURE 1
Phase I Leak Check (View of Combustible Gas Detector)



TP 204.3 F.1/ B. CORDOVA '95

FIGURE 2



TP 204.3 F.2/ B. CORDOVA '95

California Environmental Protection Agency



Vapor Recovery Test Procedures

TP-204.3

Determination of Leak(s)

Adopted: April 12, 1996
Amended: March 17, 1999
Amended: November 7, 2014

**California Environmental Protection Agency
Air Resources Board**

Vapor Recovery Test Procedure

TP-204.3

Determination of Leak(s)

1 APPLICABILITY

Definitions common to all certification and test procedures are in:

D-200 Definitions for Vapor Recovery Procedures

For the purpose of this procedure, the term "ARB" or "CARB" refers to the California Air Resources Board, and the term "Executive Officer" refers to the Executive Officer of the ARB or his or her authorized representative or designee.

1.1 General Applicability

The procedure is used to determine the leak-tightness of vapor control systems used in the loading of gasoline cargo tanks. It may be utilized to determine the leak-tightness of gasoline cargo tanks during loading without taking the delivery tank out of service and to determine the leak-tightness of vapor control systems at gasoline terminals and bulk plants at any time. It is also effective to determine leak tightness when the vapor control system does not create back-pressure in excess of the pressure limits of the cargo tank certification test (18 inches of water column (WC) referenced in CP-204, Certification Procedure for Vapor Recovery Systems of Cargo Tanks.

2 PRINCIPLE AND SUMMARY OF TEST PROCEDURE

A portable instrument is used to detect VOC leaks from individual sources. A leak definition concentration based on a reference compound is specified in each applicable regulation. This procedure is intended to locate and classify leaks only, and is not to be used as a direct measure of mass emission rates from individual sources.

3 BIASES AND INTERFERENCES

Individual Vapor Leak Check Duration

The duration of vapor leak checks will systematically bias the results positively (toward a determination of violation). To control this bias, leak checks shall be

performed individually with a fresh air purge between each leak check. Each leak check shall have a duration of less than twice the instrument response time (typically, less than sixteen seconds). Leak checks with a duration of greater than twice the instrument response time are invalid. The probe must be purged with fresh air for more than two instrument response times (more than sixteen seconds) between individual leak checks.

4 EQUIPMENT AND SUPPLIES

4.1 Manometer

Liquid manometer, or equivalent, capable of measuring up to 7500 pascals (30 inches WC) gauge pressure with ± 25 pascals (0.1 inch WC) precision.

4.2 Combustible gas detector

A portable hydrocarbon gas analyzer with associated sampling line and probe using catalytic oxidation to detect and measure concentrations of combustible gas in air.

4.2.1 Safety

Personnel shall assume that the combustible gas detector will be operated in an explosive atmosphere and comply with all pertinent regulations.

4.2.2 Range

Minimum range of 0-100 percent of the lower explosive limit (LEL) expressed as propane (0 to 21,000 ppm).

4.2.3 Probe Diameter

Sampling probe internal diameter of 0.625 cm (1/4 inch).

4.2.4 Probe Length

Probe sampling line of sufficient length for easy maneuverability during testing.

4.2.5 Response Time

Response time to 90 percent of the final stable reading shall be less than 8 seconds for detector with sampling line and probe attached.

4.3 Stopwatch

Accurate and precise to within ± 0.2 sec.

4.4 Graduated cylinder

Glass or plastic. 1 milliliter (mL) graduations, minimum volume 50 mL.

5 CALIBRATION PROCEDURE

Calibration is part of each application of the test procedure, see §6.2.

6 TEST PROCEDURE

6.1 Pressure

Place a pressure tap in the terminal or bulk plant vapor control system, as close as reasonably possible to the connection with the cargo tank and before any check valves in the terminal or bulk plant recovery system. Connect the manometer. Record the pressure periodically during testing.

6.2 Calibration

Calibrate the combustible gas detector with 2.1 percent by volume (21,000 ppm) propane in air for 100 percent LEL response. Calibration gas shall be traceable to NIST-SRM.

6.3 Monitoring Procedure - Vapor Leaks

During loading, check the periphery of all potential sources of leakage of the cargo tank and of the terminal or bulk plant, vapor collection system with a combustible gas detector.

6.3.1 Probe Distance

For a mobile leak source (e.g. cargo tank) the detector probe inlet shall be 2.5 cm from the potential leak source. The distance can be maintained during monitoring by putting a 2.5 cm extension on the probe tip.

For a stationary leak source (e.g. loading rack) the probe tip shall be placed at the surface of the suspected leak interface except for a moving part, such as a rotating shaft, for which the probe tip distance shall be 1 cm. The distance can be maintained during monitoring by putting a 1 cm extension on the probe tip.

6.3.2 Probe Movement

Move the probe slowly (approximately 4 cm/sec). If there is any meter deflection at a potential leak source, move the probe to locate the point of highest meter response.

6.3.3 Probe Position

The probe inlet shall be positioned in the path of the vapor flow from a leak so as to maximize the measured concentration.

6.3.4 Wind

Attempt to block the wind from the area being monitored.

6.3.5 Detector Response Time

The detector response time must be equal to or less than 8 seconds and the detector shall not probe any potential leak source for longer than twice the detector response time.

6.3.6 Recording

Record the highest detector reading and location for each leak being monitored.

6.4 Monitoring Procedure - Liquid Leaks

Check cargo tank and bulk plant or terminal system for liquid leaks. Count the number of drops for two minutes.

6.4.1 For Liquid Leaks during Disconnect

Capture liquid lost upon disconnect and measure the volume using graduated cylinder.

6.4.2 Recording

For liquid leaks, record location and number of drops per minute. For liquid leaks during disconnect, record location (loading arm, recovery arm), cargo tank and volume for each consecutive disconnects.

7 ALTERNATE PROCEDURES

7.1 U.S. EPA Method 21 - Determination of Volatile Organic Compound Leaks

U.S. EPA Method 21 is an approved alternative procedure as it applies to the performance of this test procedure subject to the provisions of 6.3.1 regarding probe distances.

7.2 Other Alternative Test Procedures

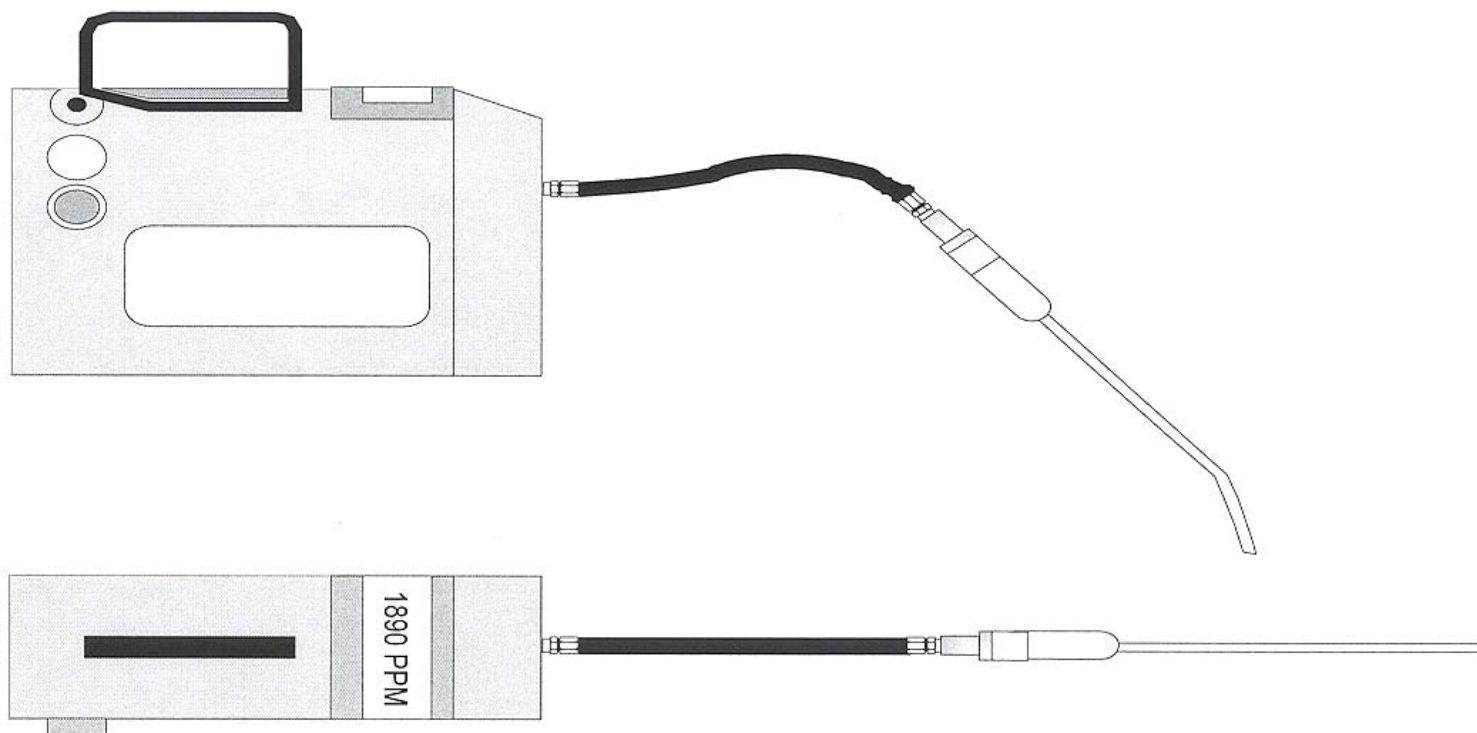
This test procedure shall be conducted as specified. Modifications to this test procedure shall not be used to determine compliance unless prior written approval has been obtained from the Executive Officer, pursuant to section 5 of Certification Procedure 204 (CP-204).

8 FIGURES

Each figure provides an illustration of an implementation which conforms to the requirements of this test procedure; other implementations which so conform are acceptable, too. Any specifications or dimensions provided in the figures are for example only, unless such specifications or dimensions are provided as requirements in the text of this or some other required test procedure.

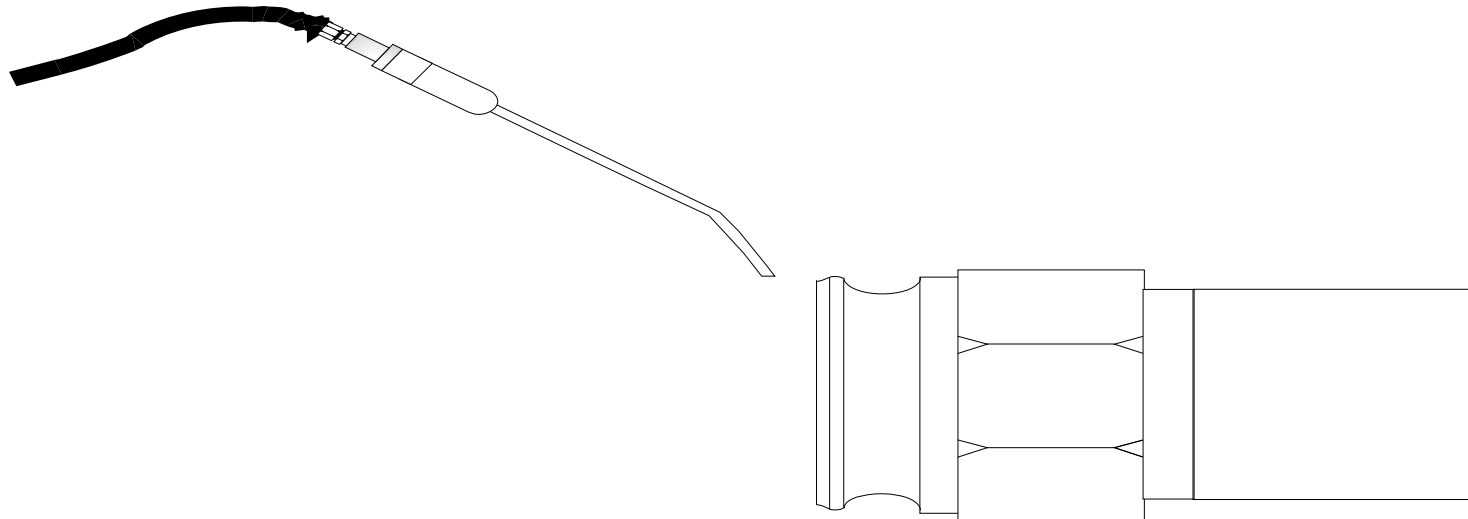
Figures 1 and 2 provide illustrations of a combustible gas meter alone and in use.

FIGURE 1
Phase I Leak Check (View of Combustible Gas Detector)



TP 204.3 F.1/ B. CORDOVA '95

FIGURE 2



TP 204.3 F.2/ B. CORDOVA '95

State of California
AIR RESOURCES BOARD

**Addendum to Final Statement of Reasons for
Rulemaking, Including Summary of Comments
and Agency Responses**

PUBLIC HEARING TO CONSIDER THE PROPOSED ADOPTION OF THE
AMENDMENTS TO CERTIFICATION AND TEST PROCEDURES FOR
VAPOR RECOVERY SYSTEMS AT GASOLINE DISPENSING FACILITIES (GDF)
AND CARGO TANKS

Public Hearing Date: July 25, 2013
First 15-day Public Availability Dates: March 3 - March 18, 2014
Second 15-day Public Availability Dates: September 16, 2014 - October 1, 2014
Agenda Item No.: 13-7-2

I. BACKGROUND

In this rulemaking, the Air Resources Board (ARB or Board) is amending its regulations and associated certification and test procedures for gasoline vapor recovery systems used at gasoline dispensing facilities and cargo tanks that deliver fuel to those facilities. These amendments add one new test procedure, update two certification procedures, and update five test procedures. The specific sections amended are 94011, 94014, and 94016, Title 17, California Code of Regulations (CCR).

The Staff Report or Initial Statement of Reasons entitled *INITIAL STATEMENT OF REASONS FOR PROPOSED RULEMAKING, AMENDMENTS TO CERTIFICATION AND TEST PROCEDURES FOR VAPOR RECOVERY SYSTEMS AT GASOLINE DISPENSING FACILITIES (GDF) AND CARGO TANKS* (Staff Report or ISOR), released June 5, 2013, is incorporated by reference herein. The Staff Report describes the proposed amendments in detail. All documents associated with this rulemaking are available on ARB's web site at <http://www.arb.ca.gov/regact/2013/cargo2013/cargo2013.htm>.

After completing the notice and comment requirements in this proceeding, ARB staff submitted the rulemaking package to the Office of Administrative Law (OAL) for review on May 28, 2014.

On July 10, 2014, OAL disapproved the rulemaking because OAL determined that it did not meet the regulatory standard for clarity as required by the Administrative Procedures Act (APA). On July 15, 2014, OAL provided ARB with a written decision setting forth the reasons for OAL's disapproval (Disapproval Decision). This notice is available on ARB's web site at <http://www.arb.ca.gov/regact/2013/cargo2013/cargo2013.htm>.

This Addendum to the Final Statement of Reasons (FSOR Addendum) updates the Staff Report and the original Final Statement of Reasons (FSOR) filed with OAL on May 28, 2014, both of which are incorporated by reference herein. Unless otherwise noted herein, nothing in this FSOR Addendum changes the analysis and conclusions set forth in the May 28, 2014, FSOR.

This FSOR Addendum begins by explaining the APA deficiencies identified by OAL in its Disapproval Decision. The FSOR Addendum then identifies and explains the modifications made to the originally proposed regulatory text to address the deficiencies identified by OAL. The FSOR Addendum also contains a summary of the comments received on the proposed regulatory amendments during the formal regulatory process, and ARB's responses to those comments.

II. ADMINISTRATIVE PROCEDURES ACT DEFICIENCIES IDENTIFIED BY OAL

In its Disapproval Decision, OAL noted several instances in which the sample data collection form provided in Test Procedure (TP)-206.4 used terminology and asked for information that was inconsistent with the test procedure. OAL also noted some other inconsistencies and typographical errors, and noted that ARB staff had failed to provide a response to one of the comments within a comment letter that was submitted during the initial 45-day public comment period.

Pursuant to Government Code section 11349.4, ARB may correct the noted deficiencies and resubmit the rulemaking package within 120 days of ARB's receipt of OAL's written decision.

ARB published a second Notice of Public Availability of Modified Text on September 16, 2014. This Notice of Public Availability of Modified Text included the proposed regulatory modifications necessary to address the APA deficiencies identified by OAL, as well as other minor modifications to correct typographical errors and further clarify the regulatory requirements. No comments were received during the second supplemental comment period.

III. MODIFICATIONS TO THE ORIGINAL PROPOSAL

As described above, OAL disapproved the proposed rulemaking because several sections did not meet the APA's clarity standard. ARB staff proposed several minor changes from the originally-proposed amended regulatory text of Certification Procedure (CP)-204, TP-204.1, TP-204.3, and TP-206.4 to address the clarity issues raised by OAL's Disapproval Decision. Staff also made changes to correct grammatical errors, clarify existing provisions, improve consistency, and make formatting and terminology more consistent with similar ARB vapor recovery certification and test procedures. These modifications are summarized in the September 16, 2014 second 15-day Notice of Public Availability of Modified Text. The modifications do not significantly change the CP and TPs.

Note that in the second 15-day public notice package, ARB erroneously included a reference to “cloud cover” in section 6.4 of TP-206.4. Since this reference was erroneously included in the proposed 15-day regulatory changes, ARB has removed this reference from the final regulatory text provided to OAL.

IV. SUMMARY OF PUBLIC COMMENTS AND AGENCY RESPONSE

Written comments in response to the ISOR were received during the 45-day comment period prior to the hearing from the following:

- Ms. Patty Senecal, Western States Petroleum Association (WSPA)
- Dr. Barry Wallerstein, South Coast Air Quality Management District (SCAQMD)

Below is a summary of each comment made regarding the specific regulatory actions proposed, together with an explanation of how the proposed action was changed to accommodate each comment, or the reasons for making no change. Comments not involving objections or recommendations specifically regarding the rulemaking or the procedures followed by ARB in this rulemaking are not summarized below. As noted in OAL’s Disapproval Decision, the original FSOR failed to include comment number 4 and the appropriate response. For the reader’s convenience, that comment and response are included herein, along with responses to all other comments received during the 45-day comment period. (No comments were received during either of the supplemental 15-day comment periods.) Additionally, since the original FSOR was filed with OAL on May 28, 2014, ARB has substantially revised its response to comment number 3 below, in order to better accommodate the commenter’s request. The full text of ARB’s revised response is included below.

1. Comment: We support the ARB’s proposal to improve test methods and harmonize California and federal requirements. (WSPA)

Agency Response: ARB staff appreciates WSPA’s support of this proposal.

2. Comment: In Section 9.1 of TP-204.1, please mention both regulations (the relevant section for Subpart BBBB is section 63.11092(f)(1)) (WSPA)

Agency Response: After consideration, ARB staff has decided not to incorporate WSPA’s request because Subpart BBBB Section 63.11092(f)(1) applies to gasoline distribution bulk terminals, bulk plants, and pipeline facilities. Section 9.1 of TP 204.1 references alternative test procedures for conducting the annual cargo tank vapor recovery certification. Title 40, Chapter I, Subchapter C, Part 63, Subpart R, section 63.425(e) lists the annual certification test method and procedure for gasoline cargo tanks.

3. Comment: Section 8 of TP-204.1 refers to ARB’s Online Cargo Tank Vapor Recovery Certification Program for test reporting. Please ensure that the online form requests all of the test information that is required to be reported under the

corresponding Federal requirements in 40 CFR 63 Subpart BBBBBB, Section 63.11094(b)(2), and that ARB's tightness certificates also satisfy all of those requirements. (WSPA)

Agency Response: To accommodate the commenter's request, ARB staff will add optional fields to the Online Cargo Tank Vapor Recovery Certification Program form to allow the optional inclusion of the information required to be reported under federal requirements in 40 CFR 63 Subpart BBBBBB, Section 63.11094(b)(2). ARB staff agrees that the addition of these optional fields will facilitate state and federal cargo tanker reporting requirements by giving cargo tank owners and operators the option to consolidate the information required by certain state and federal reporting requirements into a single form. ARB staff notes, however, that applicants are not required to include any information not expressly required under ARB's compliance procedures, and an applicant's decision not to include any optional information will not affect ARB's review of the application.

4. Comment: The Staff Report states that there are no federal regulations that are directly comparable to California's Enhanced Vapor Recovery (EVR) program. The commenter notes that there are in fact federal regulations that require Stage I (the federal equivalent to California's Phase I) vapor recovery systems to be installed on gasoline dispensing facilities with monthly throughputs of 100,000 gallons or more, and requests that the Staff Report be updated to include Subpart BBBBBB of 40 CFR 63 as a federal regulation comparable to California's EVR program. (WSPA)

Agency Response: Staff agrees with the commenter that there are federal regulations in place requiring certain gasoline dispensing facilities to install and maintain vapor recovery systems. The intent of the federal regulations is to reduce emissions associated with the storage and transfer of gasoline during marketing operations, which is consistent with California's EVR program. However, the federal regulations are not directly comparable to California's regulations because they differ in several significant ways. For example, applicability of vapor recovery requirements is more limited under federal regulations. Furthermore, federal performance standards and specifications for vapor recovery equipment are in some cases less stringent than under California's EVR program, and the federal regulations do not require vapor recovery equipment to be certified by ARB. Therefore, Staff does not view the federal regulations (including Subpart BBBBBB) as directly applicable to California's regulations for cargo tanks.

5. Comment: A better approach to addressing current problems with applying TP-201.1 to aboveground storage tanks (AST) would be to measure the volume of vapor that would otherwise be vented from the AST separate from the fuel delivery process. That measured volume can then be discounted in order to determine the full impact of the fuel delivery and the overall volumetric efficiency of the Phase I EVR system. (SCAQMD)

Agency Response: ARB staff agrees with SCAQMD's suggestion, and has revised the proposal to include a method to quantify standing loss emissions prior to conducting a Phase I transfer, then subtracting those emissions from the emissions observed in the time after the transfer is completed. The technical basis for this approach, and a description of the process that staff used to develop and test this approach, was included as Attachment 5 of the first 15-day Notice of Public Availability of Modified Text, which was made available on March 3, 2014.